EPA REGISTRATION NUMBER 352-662 – Vol. 6

Manufacturing process information may be entitled to confidential treatment

Responding to question regarding Kocide 3000
Kristi A Barnett to: Shyam Mathur 11/17/2009 07:55 AM

Dear Shyam,

I am sorry for the delayed response to your question on Friday but I wanted to consult with the product chemist before I responded to you.

The active ingredient in DuPont™ Kocide® 3000 is metallic copper. Copper hydroxide contains 65.1% metallic copper. Therefore, 461 g/kg copper hydroxide x 65.1% active ingredient yields 300 g/kg (30%) metallic copper.

Please let me know if you need any more information.

Regards,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)

Francais Deutsch Italiano Espanol Portugues Japanese Chinese Korean

http://www.DuPont.com/corp/email_disclaimer.html

Re: Fw: Responding to question regarding Kocide 3000

Kristi A Barnett to: Shyam Mathur 11/20/2009 10:50 AM

Shyam,
Process improvements in the Kocide 3000 formulation enable us to reduce the copper, thus the environmental impact, without losing any of the efficacy.

Regards,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)

Mathur.Shyam@epamail.epa.gov
11/19/2009 01:38 PM

To: Kristi A Barnett/AE/DuPont@DuPont
cc:
Subject: Re: Fw: Responding to question regarding Kocide 3000

Hi Kristi: Thank you very much for your response. I am just wondering, why there was need to produce the active ingredient by chemical reaction when it was available from the registered source? What was the reason to combine in this way? Thanks.

shyam

Shyam Mathur, Ph.D
Product Chemistry Team Leader
Technical Review Branch/Registration Division
OPP / USEPA
703-308-9374

From: Kristi A Barnett <Kristi.A.Barnett@usa.dupont.com>

To: Shyam Mathur/DC/USEPA/US@EPA

Date: 11/19/2009 01:30 PM

Subject: Fw: Responding to question regarding Kocide 3000

Dear Shyam,

I'm just checking to make sure you received my email in response to your phone call last week.

Thank you,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)
----- Forwarded by Kristi A Barnett/AE/DuPont on 11/19/2009 01:15 PM -----

Kristi A Barnett/AE/DuPont

To: mathur.shyam@epa.gov

11/17/2009 07:55 AM

cc:

Subject: Responding to question regarding Kocide 3000

Dear Shyam,

I am sorry for the delayed response to your question on Friday but I

wanted
to consult with the product chemist before I responded to you.

The active ingredient in DuPont™ Kocide® 3000 is metallic copper. Copper hydroxide contains 65.1% metallic copper. Therefore, 461 g/kg
copper hydroxide x 65.1% active ingredient yields 300 g/kg (30%) metallic copper.

Please let me know if you need any more information.

Regards,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)

CONFIDENTIAL APPENDIX

[redacted]

830.1650. Description of formulation process (MRID No. 478334-01):

[redacted]

Manufacturing process information may be entitled to confidential treatment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 24, 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

E. I. DU PONT DE NEMOURS AND CO., INC. (S300/419)
ATTN: MANAGER, US REGISTRATION, DUPONT CROP PROTECTION
1007 MARKET STREET
WILMINGTON, DE 19898-0001

Report of Analysis for Compliance with PR Notice 86-5

Thank you for your submittal of 20-AUG-09. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 86-5. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

352-662
Admin Mark Needed

Memorandum

Date: 6/24/09

To: PM 22, Regulatory Manager

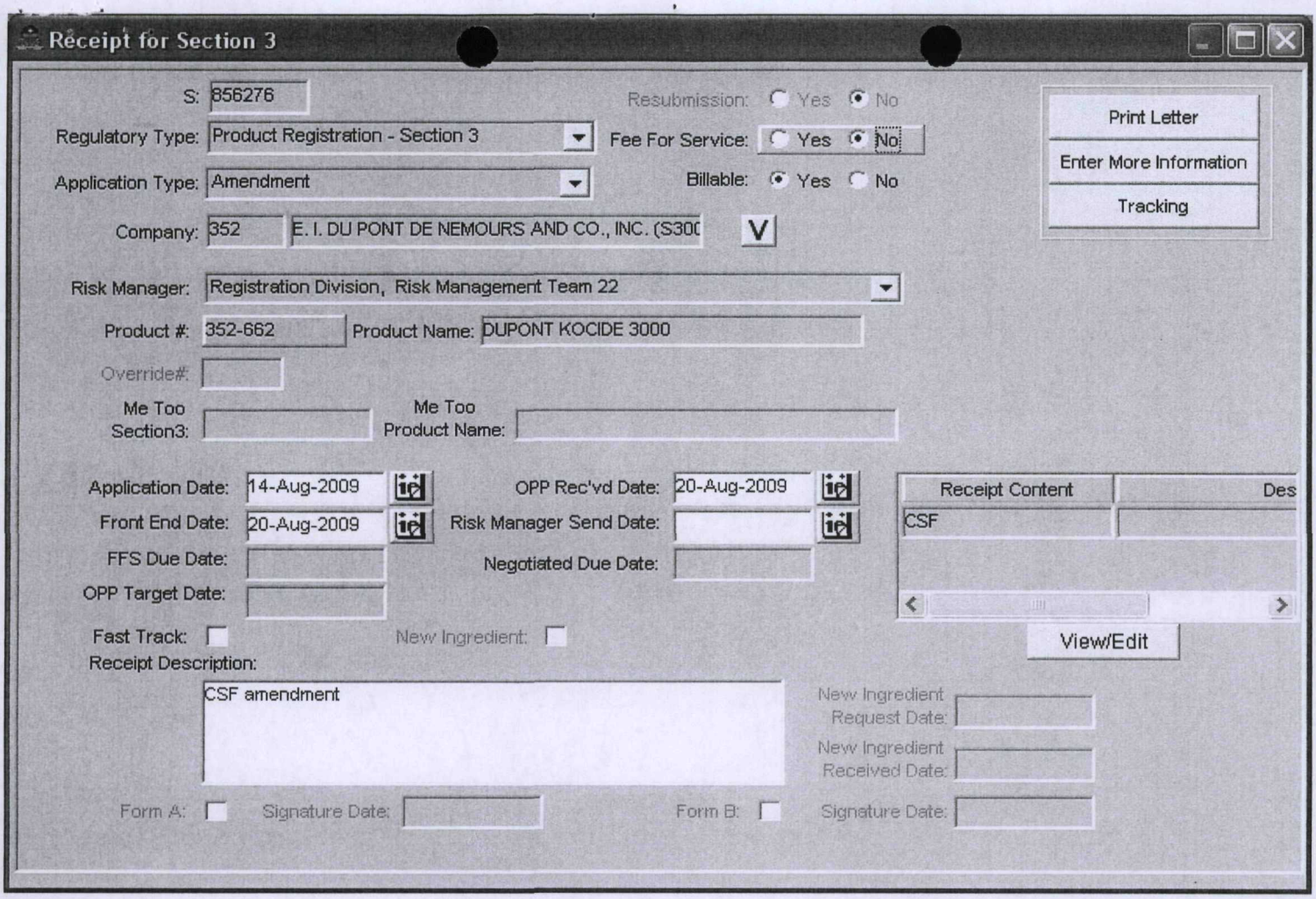
From: Information Services Branch, ITRMD

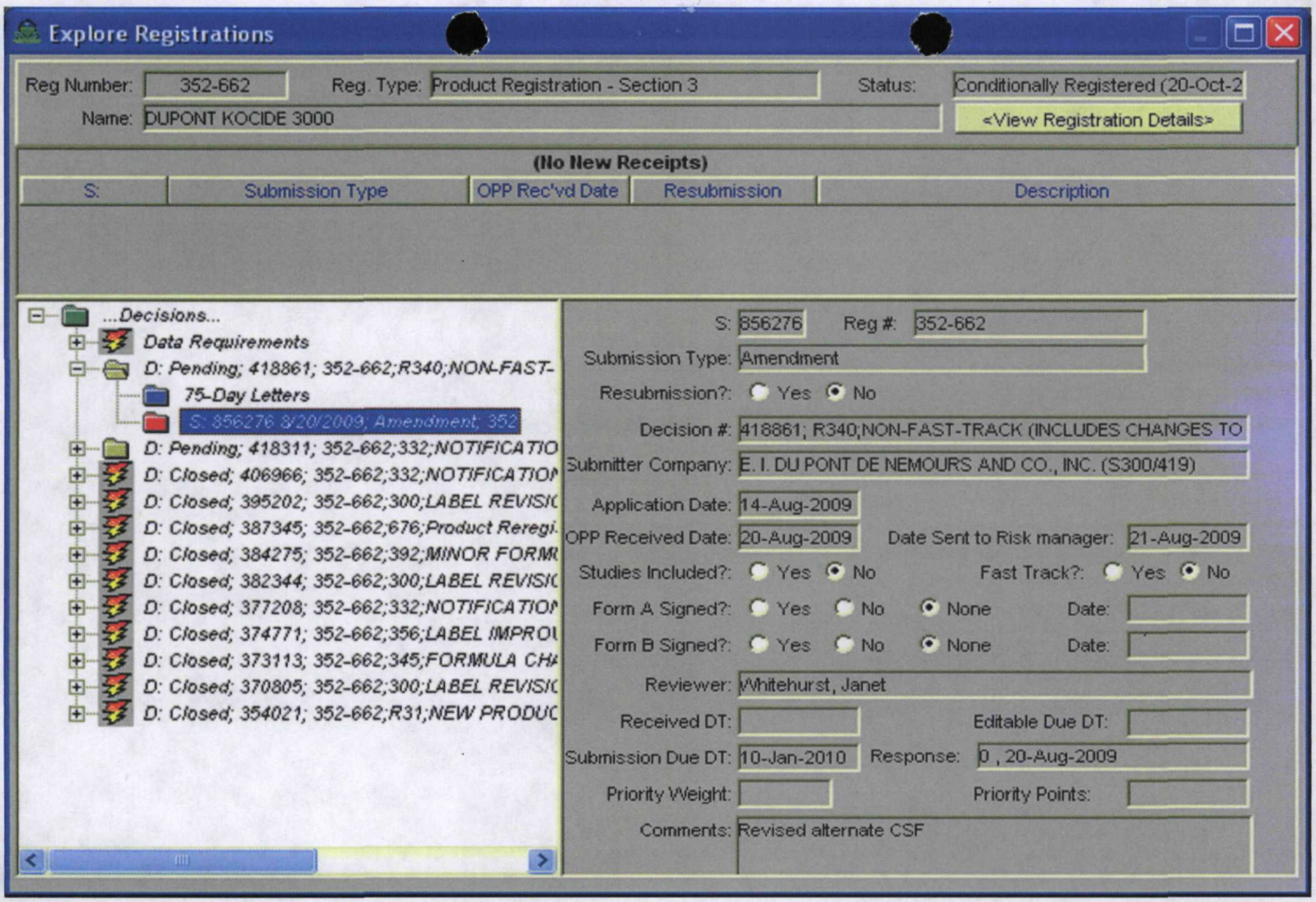
Your receipt of this data submission is not an indication that MRIDs for the enclosed studies have been posted to OPPIN.

We expect that it will be approximately 5 days from the above date before the study-level data is available in OPPIN.

If you have any questions about this process, please contact Teresa Downs (305-5363).

This is a:
- ☒ fully accepted submission
- ☐ partially accepted submission
- ☐ rejected submission


Receipt for Section 3
S: 856276
Resubmission: Yes No
Regulatory Type: Product Registration - Section 3
Fee For Service: Yes No
Application Type: Amendment
Billable: Yes No
Company: 352 E. I. DU PONT DE NEMOURS AND CO., INC. (S300
Print Letter
Enter More Information
Tracking
Risk Manager: Registration Division, Risk Management Team 22
Product #: 352-662
Product Name: DUPONT KOCIDE 3000
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 14-Aug-2009
OPP Rec'vd Date: 20-Aug-2009
Front End Date: 20-Aug-2009
Risk Manager Send Date:
FFS Due Date:
Negotiated Due Date:
OPP Target Date:
Receipt Content
Des
CSF
Fast Track:
New Ingredient:
View/Edit
Receipt Description:
CSF amendment
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:


Explore Registrations
Reg Number: 352-662
Reg. Type: Product Registration - Section 3
Status: Conditionally Registered (20-Oct-2
Name: DUPONT KOCIDE 3000
<View Registration Details>
(No New Receipts)
S:
Submission Type
OPP Rec'vd Date
Resubmission
Description
...Decisions...
Data Requirements
D: Pending; 418861; 352-662;R340;NON-FAST-
75-Day Letters
S: 856276 8/20/2009; Amendment; 352
D: Pending; 418311; 352-662;332;NOTIFICATIO
D: Closed; 406966; 352-662;332;NOTIFICATIOI
D: Closed; 395202; 352-662;300;LABEL REVISIC
D: Closed; 387345; 352-662;676;Product Reregi
D: Closed; 384275; 352-662;392;MINOR FORMI
D: Closed; 382344; 352-662;300;LABEL REVISIC
D: Closed; 377208; 352-662;332;NOTIFICATIOI
D: Closed; 374771; 352-662;356;LABEL IMPROI
D: Closed; 373113; 352-662;345;FORMULA CHA
D: Closed; 370805; 352-662;300;LABEL REVISIC
D: Closed; 354021; 352-662;R31;NEW PRODUC
S: 856276
Reg #: 352-662
Submission Type: Amendment
Resubmission?: Yes No
Decision #: 418861; R340;NON-FAST-TRACK (INCLUDES CHANGES TO
Submitter Company: E. I. DU PONT DE NEMOURS AND CO., INC. (S300/419)
Application Date: 14-Aug-2009
OPP Received Date: 20-Aug-2009
Date Sent to Risk manager: 21-Aug-2009
Studies Included?: Yes No
Fast Track?: Yes No
Form A Signed?: Yes No None
Date:
Form B Signed?: Yes No None
Date:
Reviewer: Whitehurst, Janet
Received DT:
Editable Due DT:
Submission Due DT: 10-Jan-2010
Response: 0 , 20-Aug-2009
Priority Weight:
Priority Points:
Comments: Revised alternate CSF

SEP 11 2009

PRIA 2 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

3/23/09

21 Day Screen Start Date: 8-20-09

Experts In-Processing Signature: MF HARRINGTON Date 8-21-09 Fee Paid: Yes ✓

Division management contacted on issues No_____Yes_____Date_____

EPA Reg. Number: 352-662	EPA Receipt Date: 8-20-09

	Items for Review	Yes	No	N/A*
1	**Application Form** (EPA Form 8570-1)(link to form) signed & complete including package type	X		
2	**Confidential Statement of Formula** all boxes completed, form signed, and dated (EPA Form 8570-4) (Link to form)			
	a) All inerts (link to http://www.epa.gov/opprd001/inerts/), including fragrances, approved for the proposed uses (see Footnote A) — yes: X, no: X — ADDITIONAL INFO SUBMITTED 8/27/09			
3	**Certification with Respect to Citation of Data** (EPA Form 8570-34) (Link to form) completed and signed (N/A if 100% repack)	X		
	Certificate and data matrix consistent	X		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B) — yes: , no:			
	If applicable, is there a letter of Authorization for exclusive use only.			
4	**Formulator's Exemption Statement** (EPA Form 8570-27) (Link to form) completed and signed (N/A if source is unregistered or applicant owns the technical)			X
5	**Data Matrix** (EPA Form 8570-35) (Link to form) both internal and external copies (PR 98-5) (Link to PR 98-5) completed and signed (N/A if 100% repack) INTERNAL ONLY	X	X	
	a) Selective Method (Fee category experts use) — yes: X, no:			
	b) Cite-All (Fee category experts use) — yes: , no:			
	c) Applicant owns all data (Fee category experts use) — yes: X, no:			
6	**5 Copies of Label (link to http://www.epa.gov/oppfead1/labeling/lrm/) (Electronic labels on CD are encouraged and guidance is available)(link to** http://www.epa.gov/pesticides/regulating/registering/submissions/index.htm#labels **)**		X	

7	**Is the data package consistent with PR Notice 86-5** (link to PRN 86-5)	X		
8	**Notice of Filing (link to http://www.epa.gov/pesticides/regulating/tolerance_petitions.htm) included with petitions (link to http://www.epa.gov/pesticides/regulating/tolerances.htm)**			X
9	**If applicable for conventional applications, reduced risk rationale (link to http://www.epa.gov/opprd001/workplan/reducedrisk.html)**			X
10	**Required Data (link to http://www.epa.gov/pesticides/regulating/data_requirements.htm) and/or data waivers. See Footnote C.**			X
	a) List study (or studies) not included with application			

Comments:

DATA PASSED 86-5 REVIEW. AA 8/25/09

INERTS DID NOT PASS INITIAL SCREENING. K. BARNETT WAS CONTACTED TO SUBMIT ADDITIONAL INFORMATION. MSDS FOR BOTH DEFICIENT INERTS WERE SENT & INCLUDED IN CSF ENVELOPE. AA 8/27/09

MRID 478334

* N/A – Not Applicable

Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses. If an unapproved inert is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. <u>All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.</u>

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses **even if a product is currently registered** by consulting the inert Web

site [link to http://www.epa.gov/opprd001/inerts/lists.html] and if the inert is not approved, to **obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient.** Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at inertsbranch@epa.gov and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch [Link to http://www.epa.gov/oppbppd1/biopesticides/contacts_bppd.htm].

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information [link to http://www.epa.gov/opprd001/inerts/tips.pdf] must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

Unapproved Inerts Identified on CSFs

All applications except conventional new products and PIPs

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

Conventional New Product Applications

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R311, R312 or R313), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or

2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or

2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

August 21, 2009

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

OPP Decision Number: D-418861
EPA File Symbol or Registration Number: 352-662
Product Name: DUPONT KOCIDE 3000
EPA Receipt Date: 20-Aug-2009
EPA Company Number: 352
Company Name: E. I. DU PONT DE NEMOURS AND CO., INC. (S300/419)

JACOB J. VUKICH
E. I. DU PONT DE NEMOURS AND CO., INC. (S300/419)
ATTN: MANAGER, US REGISTRATION, DUPONT CROP PROTECTION
1007 MARKET STREET
WILMINGTON, DE 19898-0001

SUBJECT: Receipt of Registration Amendment Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your amendment and certification of payment. If you submitted data with this application, the results of the PRN-86-5 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R340

NON-FAST-TRACK (INCLUDES CHANGES TO PRECAUTIONARY LABEL STATEMENTS;SOURCE CHANGES TO AN UNREGISTERED SOURCE);

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 305-6249.

Sincerely,

Teresa Downs
Front End Processing Staff
Information Technology & Resources Management Division

Fee for Service

pem 856276G~

This package includes the following

- ○ New Registration
- ◉ Amendment

☒ Studies? ☐ Fee Waiver?

☐ volpay ✓ % Reduction: ___

for Division

- ○ AD
- ○ BPPD
- ◉ RD

Risk Mgr. 22

Receipt No. S-	856276
EPA File Symbol/Reg. No.	352-662
Pin-Punch Date:	8/20/2009

☐ This item is NOT subject to FFS action.

Action Code:

Requested: R 340

Granted: R 340

Amount Due: $ 3,444.00

Inerts approved. S. Lotz 9/1/09

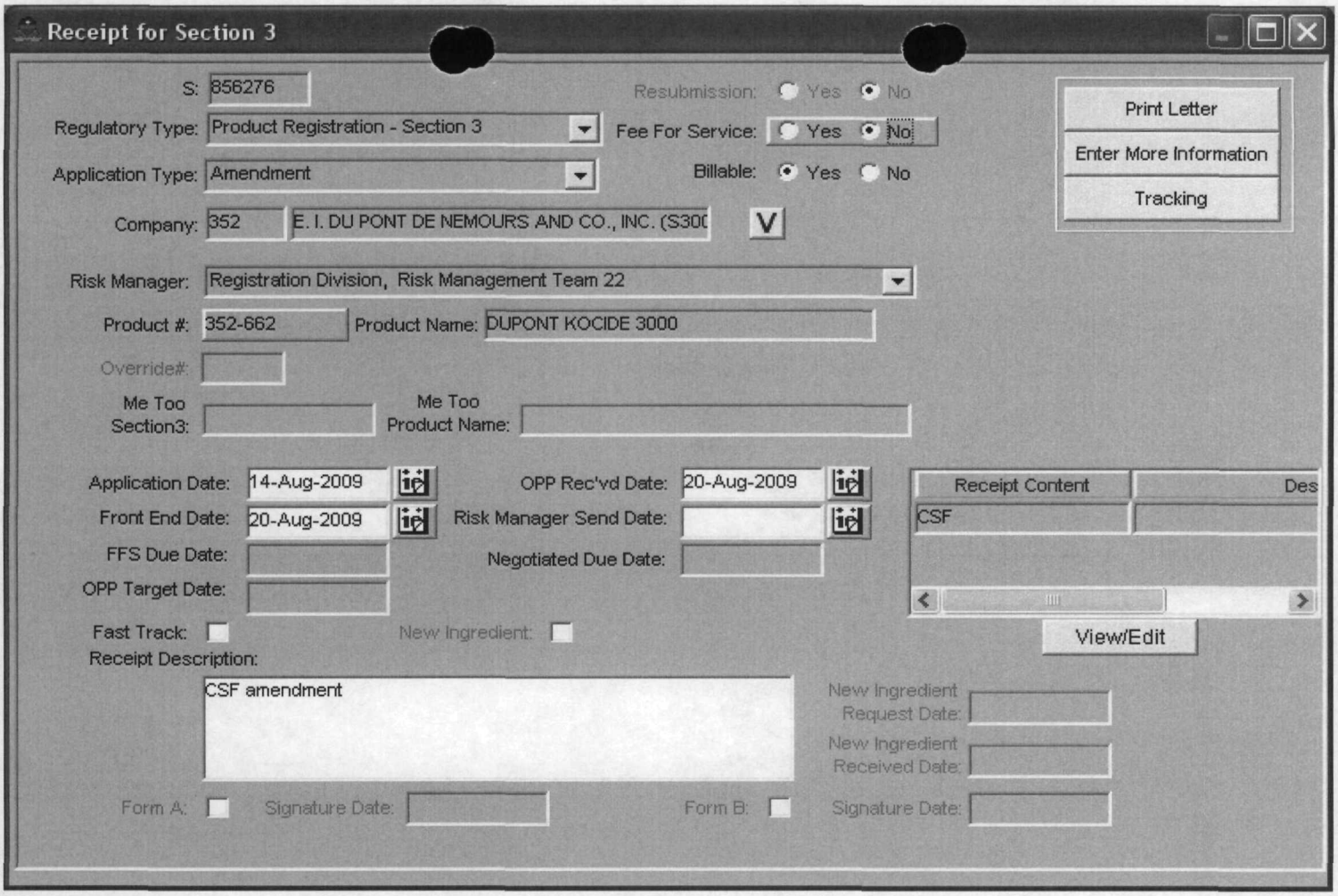
Parent/Child Decisions:

~~Inerts not approved. See status form.~~ S. Roe 8/24/09

☒ Inert Cleared for Intended Use ☒ Uncleared Inert in Product

Reviewer: J. Miller Date: 8-21-09

Remarks:


Receipt for Section 3
S: 856276
Resubmission: Yes No
Regulatory Type: Product Registration - Section 3
Fee For Service: Yes No
Application Type: Amendment
Billable: Yes No
Company: 352 E. I. DU PONT DE NEMOURS AND CO., INC. (S30
Print Letter
Enter More Information
Tracking
Risk Manager: Registration Division, Risk Management Team 22
Product #: 352-662
Product Name: DUPONT KOCIDE 3000
Override#:
Me Too Section3:
Me Too Product Name:
Application Date: 14-Aug-2009
OPP Rec'vd Date: 20-Aug-2009
Front End Date: 20-Aug-2009
Risk Manager Send Date:
FFS Due Date:
Negotiated Due Date:
OPP Target Date:
Receipt Content
Des
CSF
Fast Track:
New Ingredient:
View/Edit
Receipt Description:
CSF amendment
New Ingredient Request Date:
New Ingredient Received Date:
Form A:
Signature Date:
Form B:
Signature Date:

FEE FOR SERVICE

[redacted] [redacted]

Online Payment

Step 3: Confirm Payment 1 | 2 | 3

Thank you.
Your transaction has been successfully completed.

Pay.gov Tracking Information

Application Name: PRIA Service Fees
Pay.gov Tracking ID: 24VMPI87
Agency Tracking ID: 74078537992
Transaction Date and Time: 08/18/2009 11:13 EDT

Payment Summary

Address Information		Account Information		Payment Information	
Account Holder Name:	Lesley. P. Czochor	**Card Type:**	Visa	**Payment Amount:**	$3,444.00
Billing Address:	DuPont 1090 Elkton Rd	**Card Number:**	**********9323	**Transaction Date and Time:**	08/18/2009 11:13 EDT
Billing Address 2:	Stine Haskell	**Decision Number:**			
City:	Newark	**Registration Number:**	352-662		
State / Province:	DE				
Zip / Postal Code:	19711-3507				
Country:	USA				

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 05-31-98

EPA

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☒ Amendment
☐ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
352-662	Tony Kish	☐ None ☐ Restricted
4. Company/Product (Name)	**PM#**	
DuPont™ Kocide® 3000	22	

5. Name and Address of Applicant *(Include ZIP Code)*

DuPont Crop Protection
Stine Haskell Research Center
P.O. Box 30
Newark, DE 19714

Attn: Kristi Barnett (S300/429)
kristi.a.barnett@usa.dupont.com

☐ *Check if this is a new address*

6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. _____

Product Name _____

Section - II

☒ Amendment - Explain below.
☐ Resubmission in response to Agency letter dated _____
☐ Notification - Explain below.
☐ Final printed labels in response to Agency letter dated _____
☐ "Me Too" Application.
☐ Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Please accept this submission of a CSF amendment requiring review within RD for DuPont™ Kocide® 3000 (EPA Reg. No. 352-662).
FEE Category: R340
Registration Fee: $3,444

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes* ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product: ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Kristi A. Barnett	Registration Specialist	(302) 366-5051

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title	4. Typed Name	5. Date
Kristi A Barnett	Registration Specialist	Kristi A. Barnett	August 14, 2009

Pages 25-26 Claimed confidential by submitter

TRANSMITTAL DOCUMENT

1. **Name and Address of Submitter:**

   E.I. duPont de Nemours and Company
   Stine-Haskell Research Center
   P.O. Box 30
   Newark, Delaware 19714-0030

2. **Regulatory Action in Support of Which This Package is Submitted:**

   Submission of a Product Chemistry study for DuPont™ Kocide® 3000, EPA Reg. No. 352-662

3. **Transmittal Date:**

   August 14, 2009

4. **List of Submitted Studies:**

Volume Number	Title	MRID
1	Administrative Materials (Transmittal Document)	
2	Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water-Dispersible Granule; DuPont-28831; OPPTS 830.1550, .1600, .1650, .1670, .1750	

Submitter: Kristi A. Barnett Date: 8-14-09

Signature: Kristi A Barnett Title: Registration Specialist

Company Contact: Kristi A. Barnett Phone: 302-366-5051

FAX: 302-355-2806 e-mail: kristi.a.barnett@usa.dupont.com

Form Approved OMB Nos. 2070-0060; 2070-0057; 2070-0107; 2070-0122; 2070-0164

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
1200 Pennsylvania Avenue, N.W.
WASHINGTON, D.C. 20460

Paperwork Reduction Act Notice: The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Do not send the completed form to this address.

Certification with Respect to Citation of Data

Applicant's/Registrant's Name, Address, and Telephone Number DuPont Crop Protection, Stine-Haskell Res. Ctr., P.O. Box 30, Newark, DE 19714 (302)366-5051	EPA Registration Number/File Symbol 352-662
Active Ingredient(s) and/or representative test compound(s) Copper hydroxide	Date August 14, 2009
General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158) Terrestrial Crops	Product Name DuPont™ Kocide® 3000

NOTE: If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

SECTION I: METHOD OF DATA SUPPORT (Check one method only)

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☑ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

SECTION II: GENERAL OFFER TO PAY

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☑ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

SECTION III: CERTIFICATION

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses .

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (I) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of any product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature	Date	Typed or Printed Name and Title
Kristi A Barnett	August 14, 2009	Kristi A. Barnett, Registration Specialist

EPA Form 8570-34 (12-2003) Electronic and Paper versions available. Submit only Paper version.

Form Approved OMB No. 2070-0060

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
401 M Street, S.W.
WASHINGTON, D.C. 20460

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Data Matrix

Date:	EPA Reg. No.: 352-662
Applicant's / Registrant's Name & Address: E. I. DuPont de Nemours and Company, Wilmington, Delaware	Product: DuPont™ Kocide® 3000

Ingredient: Copper Hydroxide

Guideline Reference Number	Guideline Study name:	MRID Number	Submitter	Status	Note
830.1550, .1600, .1650, .1670, .1750	Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule: DuPont-26511	47545205	352	Own	
830.1550, .1600, .1650, .1670, .1750	Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule: DuPont-28831		352	Own	submitted herein
830.1550, .1600, .1620, .1670, .1700, .1750, .6302, .6303, .6313, .6314, .6320, .7000, .7300	Donaldson, D. (2005) GX-569: Product Chemistry Data: Final Report. Project Number: P99/027	46477301	352	Own	
830.6317, .6320	Donaldson, D. (2000) GX-569: One Year Storage Stability. Project Number: P99/029	46496501	352	Own	
870.1100	Merkel, D. (2001) Acute Oral Toxicity Study in Rats - Defined LD50: GX-569014. Project Number: 10761, P320, 010530/5R	46477303	352	Own	
870.1200	Merkel, D. (2001) GX-569014: Acute Dermal Toxicity Study in Rats - Limit Test. Project Number: 10762, P322, 010530-5R	46477304	352	Own	
870.1300	Merkel, D. (2001) GX-569014: Acute Inhalation Toxicity Study in Rats. Project Number: 10763, P330, 010530/5R	46477305	352	Own	
870.2400	Merkel, D. (2001) GX-569014: Primary Eye Irritation Study in Rabbits. Project Number: 10764, P324, 010530/5R	46477306	352	Own	
870.2500	Markel, D. (2001) GX-569014: Primary Skin Irritation Study in Rabbits. Project Number: 10765, P326, 010530/5R	46477307	352	Own	
870.2600	Merkel, D. (2001) GX-569014: Dermal Sensitization Study in Guinea Pigs (Magnusson-Kligman Method). Projuect Number: 10766, P329, 010530/5R	46477308	352	Own	

Signature: Kristi A Barnett

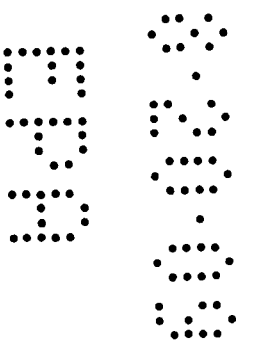
Kristi A. Barnett, Registration Specialist

Date: 8/13/2009

Inert ingredient information may be entitled to confidential treatment

DuPont™ Kocide® 3000

MSDS for new [redacted]



Pages 31-36 Inert & product ingredient source information may be entitled to confidential treatment

Material to be added to an e-Jacket/Jacket

Reg. No. 352-662

Description: Alternate CSF

1. ☑ **Placement within the e-Jacket/jacket:**
   - ☑ **Default: (chronological, top = newest)**
   - ☐ **File Location: (PDF page number, i.e., "before page 45")**

2. ☑ **Send to Data Extraction contractors this material:**
   - ☐ **Newly stamped accepted label**
   - ☐ **Notification**
   - ☑ **New CSF**
   - ☐ **Other:** _____

3. Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer's Name: TK/JW

Phone: _____ **Division:** _____

Date: 1/7/10

Created November 18, 2008

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

JAN 7 2010

Attention: Kristi Barnett (S300/429)
DuPont Crop Protection
Stine Haskell Research Center
P.O. Box 30
Newark, DE 19714

Subject: Kocide 3000
EPA Reg. No. 352-662
Alternate CSFs
EPA Decision Number 418861
Your Application Dated August 14, 2009

Dear Ms. Barnett:

The alternate Confidential Statements of Formula (CSF) dated 06/25/09 (#A1), and 08/10/09 (#A2), referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. These two alternate CSFs have been added to the subject product file. A copy of the product chemistry review is enclosed for your records.

If you have any questions, please contact Janet Whitehurst by phone at (703) 305-6129 or via email at whitehurst.janet@epa.gov.

Sincerely,

Tony Kish
Product Manager (22)
Fungicide Branch
Registration Division (7505P)

Enclosure

DP BARCODE No.: D372684 **File Symbol No.:** 352-662 **PRODUCT NAME:** DuPont Kocide 3000

FEE

DATE OUT: 07/ JAN / 2010

SUBJECT: **FEE.PRODUCT CHEMISTRY REVIEW OF MP [ ] EP [X]**
DP BARCODE No.: D372684 **File Symbol No.:** 352-662
PRODUCT NAME: DuPont Kocide 3000
COMPANY: E. I. DuPont De Nemours & Co. Incorporation
FOOD USE [X] NON-FOOD USE [ ] INTEGRATED FORMULATION [X]
PCC: 023401; **Decision No.** 418861 **ACTION CODE:** R340

FROM: Shyam Mathur,
Product Chemistry Team Leader
Technical Review Branch/RD (7505P)

S Mathur 01/7/10.

TO: Janet Whitehurst / Tony Kish, RM 22
Herbicide Branch / RD (7505P)

INTRODUCTION:

TRB has previously reviewed proposed alternate CSF's #A1 (dated 06-25-09) & #A2 (dated 08-10-09) and supporting product chemistry data with MRID No. 478334-01 (see PCR dated 11-17-09, DP369347). The evaluation indicated that the product chemistry data submitted corresponding to guidelines 830.1550 (product identity & composition), 830.1600 (description of materials used to produce the product), 830.1650 (description of formulation process), 830.1670 (discussion of the formation of impurities) and 830.1750 (certified limits) are acceptable. However the proposed CSF's for alternate formulations were found to be unacceptable, since the product is produced by an integrated process, the proposed CSF's must be supported by analytical data on the product. This deficiency was discussed in teleconference with the registrant (Kristi Barnett & Thomas Zaucha), Tony Kish (FB), Janet Whitehurst (FB) and Shyam Mathur (TRB) on January 6, 2009 at 10 AM. After the discussion, the registrant agreed to provide supplemental data on analysis of the final product which included the certificate of analysis of five batches and the analytical method used to assay the active ingredient copper hydroxide. The registrant submitted the supplemental data by e-mail on January 6th, 2009. TRB has been asked to evaluate the supplemental data provided and determine whether the data provided support the proposed alternate CSF #A1 (dated 06-25-09) & #A2 (dated 08-10-09) and their acceptability.

SUMMARY OF FINDINGS

1. The end use product contains copper hydroxide [Reg. No. 352-682, 93.6%] as the active ingredient with the product label claim of 46.1%. According to the registrant part of the active ingredient (copper hydroxide) was obtained from the registered source of copper hydroxide and the rest was obtained by the chemical reaction. For details, please refer to Confidential Appendix.

2. The revised CSF's for alternate formulations # A1 & # A2 have been filled out correctly and completely. The nominal concentration of the active ingredient in the CSF concurs with the product label claim nominal concentration. The CSF's are in compliance with the PR Notice 91-2 and 40CFR§152.43. All the inert ingredients used in the formulations have been approved by the Agency (IIAB, 09-01-09). The proposed certified limits for the active ingredients and for the inert ingredients are in compliance with standard certified limits set forth in 40CFR§158.350(b)(2), except for the diluent. The registrant has provided proper justification for wider limits.

3. The revised alternate CSF's # A1 (dated 06-25-09) and # A2 (dated 08-10-09) are substantially similar to the current basic CSF (dated 09-07-07) in chemical composition and physical-chemical properties.

4. The registrant has submitted the certificate of analysis for Kocide 3000 which included the following batches:
Lot No. DEC09HG023 (Copper-29.1%; copper hydroxide-44.7%)
Lot No. DEC09HG029 (Copper-30.1%; copper hydroxide-46.2%)
Lot No. DEC09HG036 (Copper-30.2%; copper hydroxide-46.4%)
Lot No. DEC09HG045 (Copper-30.1%; copper hydroxide-46.2%)
Lot No. DEC09HG055 (Copper-30.2%; copper hydroxide-46.4%)

CONCLUSIONS:

1. Based on the supplemental data provided, TRB has re-evaluated the revised alternate CSF's # A1 (dated 06-25-09) & # A2 (dated 08-10-09) and has now found them to be acceptable.

CONFIDENTIAL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

CONFIDENTAIL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

CONFIDENTIAL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

Analytical Method

The registrant used the Griffin Method TM-1042. The copper is determined by dissolving the product in acetic acid, adding excess potassium iodide, and back-titrating with sodium thiosulfate. Details of the analytical method are provided below.

I. INTRODUCTION

A. Scope

This method is applicable for the quantitation of copper in Kocide® 101, Kocide® 404S, Kocide® 606, K-COP™, Kocide® DF, Kocide® LF, GX-306, Kocide® Copper Hydroxide technical, and other copper technicals.

B. Principle

Copper is determined by dissolving the product in acetic acid, adding excess potassium iodide, and backtitrating with sodium thiosulfate.

II. MATERIALS AND METHODS

A. Equipment

Buret, 50 mL - Fisher cat # 03-745B or equivalent
Beaker, 250 mL - Fisher cat # 02-539K or equivalent
Magnetic stirrer - Fisher cat # 11-495-28 or equivalent
Volumetric flask, 500 mL - Fisher cat # 10-210-5F or equivalent
PFTE coated magnetic stir bar - Fisher cat # 14-511-64 or equivalent

B. Reagents and Analytical Standards:

Acetic acid - glacial, ACS Certified - Fisher cat # A38-212 or equivalent
Potassium iodide - Fisher cat # P410-100 or equivalent
Starch indicator solution - Fisher cat # SS408-1 or equivalent
Sodium thiosulfate ($Na_2S_2O_3$) solution, 0.1 *N* - Fisher cat # SS368-20 or equivalent
Potassium dichromate, analytical standard - Fisher cat # P188-500 or equivalent
Hydrochloric acid, 1 *N* - Fisher cat # SA48-500 or equivalent

C. Preparation of 30% Potassium Iodide Solution (w/v)

Weigh 150.0000 g (± 0.1000 g) potassium iodide (KI) into a 250 mL beaker.

Quantitatively transfer the KI to a 500 mL volumetric flask.

Dilute to volume with distilled water.

Transfer the solution to an appropriate container and label appropriately.

Note: This solution can be prepared in larger or smaller amounts by using the appropriate proportions of KI and water.

D. Standardization of Sodium Thiosulfate

Place a sample of potassium dichromate standard into an oven at ≈ 100°C and dry for two hours.

Transfer the dried potassium dichromate into a desiccator and allow to cool. (NOTE: A large mass of dried potassium dichromate standard can be stored in a desiccator for future use).

Weigh 0.2200 g (± 0.0200 g) into a 250 mL beaker.

Add 80 mL of distilled water and 5 mLs of KI solution to the beaker.

While stirring, add 20 mL of 1 *N* HCl.

Mix briefly and place in the dark for ten minutes.

Titrate with 0.1 *N* $Na_2S_2O_3$ solution to a dark brownish-green color.

Add approximately 2 mL of the starch indicator solution and rinse down the sides of the beaker with distilled water. The solution will appear dark blue and opaque.

Continue the titration until one drop of titrant changes the color from dark blue to a clear light blue and does not change for thirty seconds.

Record the volume of titrant used on the Titration Record form (refer to Figure 1).

Calculate the normality of $Na_2S_2O_3$ solution (refer to Section I).

E. Sample Preparation

Weigh the following amount of sample into a 250 mL beaker:

Copper technicals	0.4000 g (± 0.1000 g)
Kocide® 404S	1.0000 g (± 0.2000 g)
Kocide® 606	1.0000 g (± 0.2000 g)
K-COP™	2.5000 g (± 0.2000 g)
Kocide® DF	0.4500 g (± 0.1000 g)

GX-306	0.5000 g (± 0.1000 g)
Kocide® LF	1.0000 g (± 0.1000 g)
Kocide® 101	0.4500 g (± 0.1000 g)

Add a magnetic stir bar and approximately 30 mL of distilled water into the beaker and place on a magnetic stirrer. (Place magnetic stirrer in a vented fume hood).

Slowly add 10 mL of acetic acid dropwise, maintaining a medium stir rate.

Stir for two minutes.

F. Sample Titration

Place a magnetic stirrer under a 50 mL buret.

Fill the buret with standardized 0.1 *N* $Na_2S_2O_3$ solution.

Place the 250 beaker which contains the sample onto the magnetic stirrer.

Add a magnetic stir bar and wash down the inner wall of the beaker with distilled water.

Add 5 mL of 30% KI solution and titrate immediately with the standardized 0.1 *N* $Na_2S_2O_3$ solution until a light, milky caramel color is obtained.

Add approximately 3 mL of starch indicator solution and continue to titrate until the blue/purple color disappears and turns a pinkish white color and does not reappear for 30 seconds.

Record the buret reading on the Titration Record form.

G. Analysis Procedure

Prepare a 30% KI solution as outlined in Section C. Label appropriately.

The 0.1 N sodium thiosulfate should be standardized prior to use or within the preceding two weeks.

Standardize the sodium thiosulfate as outlined in Section D. The standardization should be performed in triplicate.

Prepare the samples and titrate as described in Sections E and F. Samples should be prepared and titrated in triplicate.

Calculate the copper assay (refer to Section I) on the Titration Record form and average the results.

H. Time Required for Analysis

A qualified individual familiar with this method can reasonably expect to accomplish twelve sample preparations in a two hour period. The titration data for twelve samples can be acquired in approximately three hours.

I. Calculations

Standardization of $Na_2S_2O_3$ Solution:

$$Normality\ (N) = \frac{W_s \times 1000}{V_s \times 49.032}$$

where: W_s = mass of potassium dichromate (g)
V_s = volume of $Na_2S_2O_3$ used (mL)

Copper assay:

$$\%\ Copper = \frac{N \times V \times 0.06354 \times 100\%}{W}$$

where: N = normality of $Na_2S_2O_3$
V = volume of $Na_2S_2O_3$ used (mL)
W = Weight of sample (g)

DATA PACKAGE BEAN SHEET

Date: 06-Jan-2010

Decision #: 418861
DP #: (372684)
PRIA
Parent DP #:
Submission #: 865134

* * * Registration Information * * *

Registration: 352-662 - DUPONT KOCIDE 3000
Company: 352 - E. I. DU PONT DE NEMOURS AND CO., INC. (S300/419)
Risk Manager: RM 22 - Tony Kish - (703) 308-9443 Room# PY1 S-7318
Risk Manager Reviewer: Janet Whitehurst JWHITEHU
Sent Date: _____ Calculated Due Date: 06-May-2010 Edited Due Date: _____
Type of Registration: Product Registration - Section 3
Action Desc: (R340) NON-FAST-TRACK (INCLUDES CHANGES TO PRECAUTIONARY LABEL STATEME
Ingredients: 023401, Copper hydroxide(46.1%)

* * * Data Package Information * * *

Expedite: ◯ Yes ● No Date Sent: 06-Jan-2010 Due Back: _____
DP Ingredient: 023401, Copper hydroxide
DP Title: 5 batch
CSF Included: ◯ Yes ● No Label Included: ◯ Yes ● No Parent DP #: _____

Assigned To	Date In	Date Out		
Organization: RD / TRB			Last Possible Science Due Date:	11-Dec-2009
Team Name:			Science Due Date:	
Reviewer Name:			Sub Data Package Due Date:	
Contractor Name:				

* * * Studies Sent for Review * * *

No Studies

* * * Additional Data Package for this Decision * * *

Can be printed on its own page

* * * Data Package Instructions * * *

Attention: Shyam Mathur

Please review the attached 5 batch analysis.

Thanks!
Janet

DP BARCODE No.: D372684 **File Symbol No.:** 352-662 **PRODUCT NAME:** DuPont Kocide 3000

FEE

DATE OUT: 07/ JAN / 2010

SUBJECT: **FEE.PRODUCT CHEMISTRY REVIEW OF MP [ ] EP [X]**
DP BARCODE No.: D372684 **File Symbol No.:** 352-662
PRODUCT NAME: DuPont Kocide 3000
COMPANY: E. I . DuPont De Nemours & Co. Incorporation
FOOD USE [X] NON-FOOD USE [ ] INTEGRATED FORMULATION [X]
PCC: 023401; **Decision No.** 418861 **ACTION CODE:** R340

FROM: Shyam Mathur,
Product Chemistry Team Leader
Technical Review Branch/RD (7505P)

S Mathur 01/7/10.

TO: Janet Whitehurst / Tony Kish, RM 22
Herbicide Branch / RD (7505P)

INTRODUCTION:

TRB has previously reviewed proposed alternate CSF's #A1 (dated 06-25-09) & #A2 (dated 08-10-09) and supporting product chemistry data with MRID No. 478334-01 (see PCR dated 11-17-09, DP369347). The evaluation indicated that the product chemistry data submitted corresponding to guidelines 830.1550 (product identity & composition), 830.1600 (description of materials used to produce the product), 830.1650 (description of formulation process), 830.1670 (discussion of the formation of impurities) and 830.1750 (certified limits) are acceptable. However the proposed CSF's for alternate formulations were found to be unacceptable, since the product is produced by an integrated process, the proposed CSF's must be supported by analytical data on the product. This deficiency was discussed in teleconference with the registrant (Kristi Barnett & Thomas Zaucha), Tony Kish (FB), Janet Whitehurst (FB) and Shyam Mathur (TRB) on January 6, 2009 at 10 AM. After the discussion, the registrant agreed to provide supplemental data on analysis of the final product which included the certificate of analysis of five batches and the analytical method used to assay the active ingredient copper hydroxide. The registrant submitted the supplemental data by e-mail on January 6th, 2009. TRB has been asked to evaluate the supplemental data provided and determine whether the data provided support the proposed alternate CSF #A1 (dated 06-25-09) & #A2 (dated 08-10-09) and their acceptability.

SUMMARY OF FINDINGS

1. The end use product contains copper hydroxide [Reg. No. 352-682, 93.6%] as the active ingredient with the product label claim of 46.1%. According to the registrant part of the active ingredient (copper hydroxide) was obtained from the registered source of copper hydroxide and the rest was obtained by the chemical reaction. For details, please refer to Confidential Appendix.

2. The revised CSF's for alternate formulations # A1 & # A2 have been filled out correctly and completely. The nominal concentration of the active ingredient in the CSF concurs with the product label claim nominal concentration. The CSF's are in compliance with the PR Notice 91-2 and 40CFR§152.43. All the inert ingredients used in the formulations have been approved by the Agency (IIAB, 09-01-09). The proposed certified limits for the active ingredients and for the inert ingredients are in compliance with standard certified limits set forth in 40CFR§158.350(b)(2), except for the diluent. The registrant has provided proper justification for wider limits.

3. The revised alternate CSF's # A1 (dated 06-25-09) and # A2 (dated 08-10-09) are substantially similar to the current basic CSF (dated 09-07-07) in chemical composition and physical-chemical properties.

4. The registrant has submitted the certificate of analysis for Kocide 3000 which included the following batches:
Lot No. DEC09HG023 (Copper-29.1%; copper hydroxide-44.7%)
Lot No. DEC09HG029 (Copper-30.1%; copper hydroxide-46.2%)
Lot No. DEC09HG036 (Copper-30.2%; copper hydroxide-46.4%)
Lot No. DEC09HG045 (Copper-30.1%; copper hydroxide-46.2%)
Lot No. DEC09HG055 (Copper-30.2%; copper hydroxide-46.4%)

CONCLUSIONS:

1. Based on the supplemental data provided, TRB has re-evaluated the revised alternate CSF's # A1 (dated 06-25-09) & # A2 (dated 08-10-09) and has now found them to be acceptable.

CONFIDENTIAL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

CONFIDENTAIL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

CONFIDENTIAL APPENDIX

[redacted]

Quality control process information may be entitled to confidential treatment

Analytical Method

The registrant used the Griffin Method TM-1042. The copper is determined by dissolving the product in acetic acid, adding excess potassium iodide, and back-titrating with sodium thiosulfate. Details of the analytical method are provided below.

I. INTRODUCTION

A. Scope

This method is applicable for the quantitation of copper in Kocide® 101, Kocide® 404S, Kocide® 606, K-COP™, Kocide® DF, Kocide® LF, GX-306, Kocide® Copper Hydroxide technical, and other copper technicals.

B. Principle

Copper is determined by dissolving the product in acetic acid, adding excess potassium iodide, and backtitrating with sodium thiosulfate.

II. MATERIALS AND METHODS

A. Equipment

Buret, 50 mL - Fisher cat # 03-745B or equivalent
Beaker, 250 mL - Fisher cat # 02-539K or equivalent
Magnetic stirrer - Fisher cat # 11-495-28 or equivalent
Volumetric flask, 500 mL - Fisher cat # 10-210-5F or equivalent
PFTE coated magnetic stir bar - Fisher cat # 14-511-64 or equivalent

B. Reagents and Analytical Standards:

Acetic acid - glacial, ACS Certified - Fisher cat # A38-212 or equivalent
Potassium iodide - Fisher cat # P410-100 or equivalent
Starch indicator solution - Fisher cat # SS408-1 or equivalent
Sodium thiosulfate ($Na_2S_2O_3$) solution, 0.1 *N* - Fisher cat # SS368-20 or equivalent
Potassium dichromate, analytical standard - Fisher cat # P188-500 or equivalent
Hydrochloric acid, 1 *N* - Fisher cat # SA48-500 or equivalent

C. Preparation of 30% Potassium Iodide Solution (w/v)

Weigh 150.0000 g (± 0.1000 g) potassium iodide (KI) into a 250 mL beaker.

Quantitatively transfer the KI to a 500 mL volumetric flask.

Dilute to volume with distilled water.

Transfer the solution to an appropriate container and label appropriately.

Note: This solution can be prepared in larger or smaller amounts by using the appropriate proportions of KI and water.

D. Standardization of Sodium Thiosulfate

Place a sample of potassium dichromate standard into an oven at ≈ 100°C and dry for two hours.

Transfer the dried potassium dichromate into a desiccator and allow to cool. (NOTE: A large mass of dried potassium dichromate standard can be stored in a desiccator for future use).

Weigh 0.2200 g (± 0.0200 g) into a 250 mL beaker.

Add 80 mL of distilled water and 5 mLs of KI solution to the beaker.

While stirring, add 20 mL of 1 *N* HCl.

Mix briefly and place in the dark for ten minutes.

Titrate with 0.1 *N* $Na_2S_2O_3$ solution to a dark brownish-green color.

Add approximately 2 mL of the starch indicator solution and rinse down the sides of the beaker with distilled water. The solution will appear dark blue and opaque.

Continue the titration until one drop of titrant changes the color from dark blue to a clear light blue and does not change for thirty seconds.

Record the volume of titrant used on the Titration Record form (refer to Figure 1).

Calculate the normality of $Na_2S_2O_3$ solution (refer to Section I).

E. Sample Preparation

Weigh the following amount of sample into a 250 mL beaker:

Copper technicals	0.4000 g (± 0.1000 g)
Kocide® 404S	1.0000 g (± 0.2000 g)
Kocide® 606	1.0000 g (± 0.2000 g)
K-COP™	2.5000 g (± 0.2000 g)
Kocide® DF	0.4500 g (± 0.1000 g)

GX-306	0.5000 g (± 0.1000 g)
Kocide® LF	1.0000 g (± 0.1000 g)
Kocide® 101	0.4500 g (± 0.1000 g)

Add a magnetic stir bar and approximately 30 mL of distilled water into the beaker and place on a magnetic stirrer. (Place magnetic stirrer in a vented fume hood).

Slowly add 10 mL of acetic acid dropwise, maintaining a medium stir rate.

Stir for two minutes.

F. Sample Titration

Place a magnetic stirrer under a 50 mL buret.

Fill the buret with standardized 0.1 *N* $Na_2S_2O_3$ solution.

Place the 250 beaker which contains the sample onto the magnetic stirrer.

Add a magnetic stir bar and wash down the inner wall of the beaker with distilled water.

Add 5 mL of 30% KI solution and titrate immediately with the standardized 0.1 *N* $Na_2S_2O_3$ solution until a light, milky caramel color is obtained.

Add approximately 3 mL of starch indicator solution and continue to titrate until the blue/purple color disappears and turns a pinkish white color and does not reappear for 30 seconds.

Record the buret reading on the Titration Record form.

G. Analysis Procedure

Prepare a 30% KI solution as outlined in Section C. Label appropriately.

The 0.1 N sodium thiosulfate should be standardized prior to use or within the preceding two weeks.

Standardize the sodium thiosulfate as outlined in Section D. The standardization should be performed in triplicate.

Prepare the samples and titrate as described in Sections E and F. Samples should be prepared and titrated in triplicate.

Calculate the copper assay (refer to Section I) on the Titration Record form and average the results.

H. Time Required for Analysis

A qualified individual familiar with this method can reasonably expect to accomplish twelve sample preparations in a two hour period. The titration data for twelve samples can be acquired in approximately three hours.

I. Calculations

Standardization of $Na_2S_2O_3$ Solution:

$$Normality\ (N) = \frac{W_S \times 1000}{V_S \times 49.032}$$

where: W_s = mass of potassium dichromate (g)
V_s = volume of $Na_2S_2O_3$ used (mL)

Copper assay:

$$\%\ Copper = \frac{N \times V \times 0.06354 \times 100\%}{W}$$

where: N = normality of $Na_2S_2O_3$
V = volume of $Na_2S_2O_3$ used (mL)
W = Weight of sample (g)

Fw: Kocide 3000 Assay Results

Kristi A Barnett to: Shyam Mathur 01/06/2010 02:49 PM
Cc: Tony Kish, Janet Whitehurst, Thomas J Zaucha

Dear Shyam,
As requested, I have attached the signed COAs for the 5 lots of Kocide 3000.

(See attached file: COAs - HMS Kocide 3000.pdf)

Regards.
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)
----- Forwarded by Kristi A Barnett/AE/DuPont on 01/06/2010 02:44 PM -----

Kristi A Barnett/AE/DuPont
01/06/2010 11:38 AM

To: Mathur.Shyam@epamail.epa.gov@DUPONT_MHUB
cc: Kish.Tony@epamail.epa.gov, Whitehurst.Janet@epamail.epa.gov, Thomas J Zaucha/AE/DuPont@DuPont
Subject: Re: Fw: Kocide 3000 Assay Results (Document link: Kristi A Barnett)

Dear Shyam,
Your request has been forwarded to the Houston manufacturing plant but I do not expect a response back today.

Regards,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)

Mathur.Shyam@epamail.epa.gov

01/06/2010 11:29 AM

To: Kristi A Barnett/AE/DuPont@DuPont

cc: Kish.Tony@epamail.epa.gov, Whitehurst.Janet@epamail.epa.gov

Subject: Re: Fw: Kocide 3000 Assay Results

Hi Kristi: Can you please send a copy of certificate of analysis from the Laboratory which conducted the analysis or your own laboratory

Shyam Mathur, Ph.D
Product Chemistry Team Leader
Technical Review Branch/Registration Division
OPP / USEPA
703-308-9374

From: Kristi A Barnett <Kristi.A.Barnett@usa.dupont.com>

To: Tony Kish/DC/USEPA/US@EPA, Shyam Mathur/DC/USEPA/US@EPA, Janet Whitehurst/DC/USEPA/US@EPA

Cc: Thomas J Zaucha <THOMAS.J.ZAUCHA@USA.dupont.com>

Date: 01/06/2010 11:24 AM

Subject: Fw: Kocide 3000 Assay Results

Thank you, Tom, for your quick work summarizing the manufacturing assay results.

Tony, Shyam, and Janet,
I have attached the analytical method to this message.

Griffin Method TM-1042 (MRID #43144802):
(See attached file: TM-1042 analytical method for copper - hard scan.pdf)

Please let us know if you have any more questions.

Thank you,
Kristi A. Barnett
Registration Specialist
DuPont Crop Protection
Stine Haskell Research Center 300/429
1090 Elkton Road P.O. Box 30
Newark, DE 19714

(302)366-5051
(302)355-2806 (fax)
----- Forwarded by Kristi A Barnett/AE/DuPont on 01/06/2010 11:13 AM -----

Thomas J Zaucha/AE/DuPont

To: Kristi A Barnett/AE/DuPont@DuPont

01/06/2010 11:09 AM

cc:

Subject: Kocide 3000 Assay Results

Kristi,

As we discussed this morning, I've reviewed our manufacturing assay results
and show in the table below a representative 5 batches from our most recent
December 2009 campaign. Note that the official analytical method analyzes
for copper, from which the copper hydroxide is calculated.

Kocide 3000 Lot #	% Copper (TM-1042 method)	% Copper Hydroxide

	DEC09HG023	29.1	44.7
	(first lot of the campaign)		
	DEC09HG029	30.1	46.2
	DEC09HG036	30.2	46.4
	DEC09HG045	30.1	46.2
	DEC09HG055	30.2	46.4
	(last lot of the campaign)		
			(Certified Limits 43.9 -- 48.3)

During this campaign, 25 batches of Kocide 3000 were produced, with an average assay of 46.4% copper hydroxide (30.2% copper). Please let me know
if anyone has questions. Best regards.

Tom

[attachment "TM-1042 analytical method for copper - hard scan.pdf"

deleted by Shyam Mathur/DC/USEPA/US]

COAs - HMS Kocide 3000.pdf

Pages 63-67 Quality control process information may be entitled to confidential treatment

Study Title

Griffin Analytical Method TM-1042:
Copper Products Assay Method
(Copper by Iodometric Titration)

Data Requirement

Guideline 62-3
Enforcement Method

Author

Owen W. Hand
Griffin Corporation
P.O. Box 1847
Valdosta, GA 31603-1847

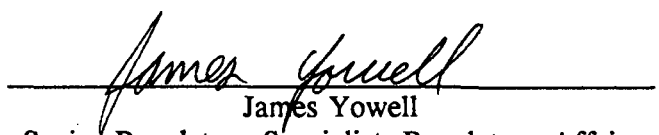
Completed On

October 18, 1993

Laboratory Project ID

Not Applicable

Submitted by



James Yowell
Senior Regulatory Specialist, Regulatory Affairs

GRIFFIN CORPORATION
P.O. Box 1847
Valdosta, GA 31603-1847

Date: 1

Volume 5 of 13 of Submission

STATEMENT OF NO DATA CONFIDENTIALITY CLAIMS

No claim of confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA Section 10 (d)(1)(A), (B) or (C).

James Yowell

James Yowell
Senior Regulatory Specialist, Regulatory Affairs

Griffin Corporation
P.O. Box 1847
Valdosta, GA 31603-1847

GOOD LABORATORY PRACTICE STATEMENT

The data reported in this volume were acquired using sound scientific principles. No study data are reported herein. The requirements of U.S. Code of Federal Regulations, Title 40, Part 160, are therefore not applicable .

Owen W. Hand

Date: 10/18/93

Owen W. Hand, Ph.D.

Senior Analytical Chemist, Chemical Services

James Yowell

Date: 10-25-93

James Yowell

Senior Regulatory Specialist, Regulatory Affairs

Griffin Corporation
P.O. Box 1847
Valdosta, GA 31603-1847

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I. INTRODUCTION

A. Scope

This method is applicable for the quantitation of copper in Kocide® 101, Kocide® 404S, Kocide® 606, K-COP™, Kocide® DF, Kocide® LF, GX-306, Kocide® Copper Hydroxide technical, and other copper technicals.

B. Principle

Copper is determined by dissolving the product in acetic acid, adding excess potassium iodide, and backtitrating with sodium thiosulfate.

II. MATERIALS AND METHODS

A. Equipment

Buret, 50 mL - Fisher cat # 03-745B or equivalent
Beaker, 250 mL - Fisher cat # 02-539K or equivalent
Magnetic stirrer - Fisher cat # 11-495-28 or equivalent
Volumetric flask, 500 mL - Fisher cat # 10-210-5F or equivalent
PFTE coated magnetic stir bar - Fisher cat # 14-511-64 or equivalent

B. Reagents and Analytical Standards:

Acetic acid - glacial, ACS Certified - Fisher cat # A38-212 or equivalent
Potassium iodide - Fisher cat # P410-100 or equivalent
Starch indicator solution - Fisher cat # SS408-1 or equivalent
Sodium thiosulfate ($Na_2S_2O_3$) solution, 0.1 *N* - Fisher cat # SS368-20 or equivalent
Potassium dichromate, analytical standard - Fisher cat # P188-500 or equivalent
Hydrochloric acid, 1 *N* - Fisher cat # SA48-500 or equivalent

C. Preparation of 30% Potassium Iodide Solution (w/v)

Weigh 150.0000 g ($\pm$ 0.1000 g) potassium iodide (KI) into a 250 mL beaker.

Quantitatively transfer the KI to a 500 mL volumetric flask.

Dilute to volume with distilled water.

Transfer the solution to an appropriate container and label appropriately.

Note: This solution can be prepared in larger or smaller amounts by using the appropriate proportions of KI and water.

D. Standardization of Sodium Thiosulfate

Place a sample of potassium dichromate standard into an oven at ≈ 100°C and dry for two hours.

Transfer the dried potassium dichromate into a desiccator and allow to cool. (NOTE: A large mass of dried potassium dichromate standard can be stored in a desiccator for future use).

Weigh 0.2200 g (± 0.0200 g) into a 250 mL beaker.

Add 80 mL of distilled water and 5 mLs of KI solution to the beaker.

While stirring, add 20 mL of 1 *N* HCl.

Mix briefly and place in the dark for ten minutes.

Titrate with 0.1 *N* $Na_2S_2O_3$ solution to a dark brownish-green color.

Add approximately 2 mL of the starch indicator solution and rinse down the sides of the beaker with distilled water. The solution will appear dark blue and opaque.

Continue the titration until one drop of titrant changes the color from dark blue to a clear light blue and does not change for thirty seconds.

Record the volume of titrant used on the Titration Record form (refer to Figure 1).

Calculate the normality of $Na_2S_2O_3$ solution (refer to Section I).

E. Sample Preparation

Weigh the following amount of sample into a 250 mL beaker:

Copper technicals	0.4000 g (± 0.1000 g)
Kocide® 404S	1.0000 g (± 0.2000 g)
Kocide® 606	1.0000 g (± 0.2000 g)
K-COP™	2.5000 g (± 0.2000 g)
Kocide® DF	0.4500 g (± 0.1000 g)

GX-306	0.5000 g (± 0.1000 g)
Kocide® LF	1.0000 g (± 0.1000 g)
Kocide® 101	0.4500 g (± 0.1000 g)

Add a magnetic stir bar and approximately 30 mL of distilled water into the beaker and place on a magnetic stirrer. (Place magnetic stirrer in a vented fume hood).

Slowly add 10 mL of acetic acid dropwise, maintaining a medium stir rate.

Stir for two minutes.

F. Sample Titration

Place a magnetic stirrer under a 50 mL buret.

Fill the buret with standardized 0.1 *N* $Na_2S_2O_3$ solution.

Place the 250 beaker which contains the sample onto the magnetic stirrer.

Add a magnetic stir bar and wash down the inner wall of the beaker with distilled water.

Add 5 mL of 30% KI solution and titrate immediately with the standardized 0.1 *N* $Na_2S_2O_3$ solution until a light, milky caramel color is obtained.

Add approximately 3 mL of starch indicator solution and continue to titrate until the blue/purple color disappears and turns a pinkish white color and does not reappear for 30 seconds.

Record the buret reading on the Titration Record form.

G. Analysis Procedure

Prepare a 30% KI solution as outlined in Section C. Label appropriately.

The 0.1 N sodium thiosulfate should be standardized prior to use or within the preceding two weeks.

Standardize the sodium thiosulfate as outlined in Section D. The standardization should be performed in triplicate.

Prepare the samples and titrate as described in Sections E and F. Samples should be prepared and titrated in triplicate.

Calculate the copper assay (refer to Section I) on the Titration Record form and average the results.

H. Time Required for Analysis

A qualified individual familiar with this method can reasonably expect to accomplish twelve sample preparations in a two hour period. The titration data for twelve samples can be acquired in approximately three hours.

I. Calculations

Standardization of $Na_2S_2O_3$ Solution:

$$Normality\ (N) = \frac{W_S \times 1000}{V_S \times 49.032}$$

where: W_s = mass of potassium dichromate (g)
V_s = volume of $Na_2S_2O_3$ used (mL)

Copper assay:

$$\%\ Copper = \frac{N \times V \times 0.06354 \times 100\%}{W}$$

where: N = normality of $Na_2S_2O_3$
V = volume of $Na_2S_2O_3$ used (mL)
W = Weight of sample (g)

III. RESULTS AND DISCUSSION

A. Accuracy

The accuracy of the method (deviation of the observed from the expected) was assessed by performing the sample preparation and titrimetric procedure in triplicate using a sample of 10,000 ppm (1 %) copper standard. The copper assay in the standard was calculated to be 1.01 %, indicating that this method is accurate for the analysis of copper. The deviation of observed responses from the expected expressed as % relative difference (Refer to Table 1 for calculation) was +1.0 % (Refer to Table 1).

B. Precision

The precision inherent in the method was demonstrated by analysis of three samples from a lot of formulated GX306 product. The results are as follows: The average copper assay in the sample was 35.58 %. The deviation of the comparative responses expressed as % RSD was 0.89 % (Refer to Table 2).

C. Recovery

The sample preparation and subsequent titrimetric procedures were evaluated by a fortification and recovery procedure. A 0.24414 g sample of formulated GX306 product (35.58 % Cu) was fortified with 0.07 g (7 mLs of 10,000 ppm copper standard) yielding 0.1569 g of copper. Analysis of this sample by the method provided indicated that copper was present at a level of 50.40 %, or a recovery of 0.1583 mg (100.9 % of theoretical).

D. Limitations

This method has been developed to analyze copper in dry copper technicals and formulated products. Inert ingredients not specifically tested may adversely affect this method.

IV. CONCLUSION

This analytical procedure provides an accurate, reliable method for the determination of copper in dry copper technicals and formulated products.

The remainder of this page left intentionally blank

V. CERTIFICATIONS

A. Certification of Authenticity

The results reported in this document accurately reflect the data collected in this study. The test procedures listed as the methods employed in the collection of these data were carefully followed and are accurately reported.

Owen W. Hand, Ph.D. Date: 10/18/93

Senior Analytical Chemist, Chemical Services

Gary R. Orr Date: 10/18/93

Manager, Chemical Services

Griffin Corporation
P.O. Box 1847
Valdosta, GA 31603-1847

Tel. (912) 249-5223

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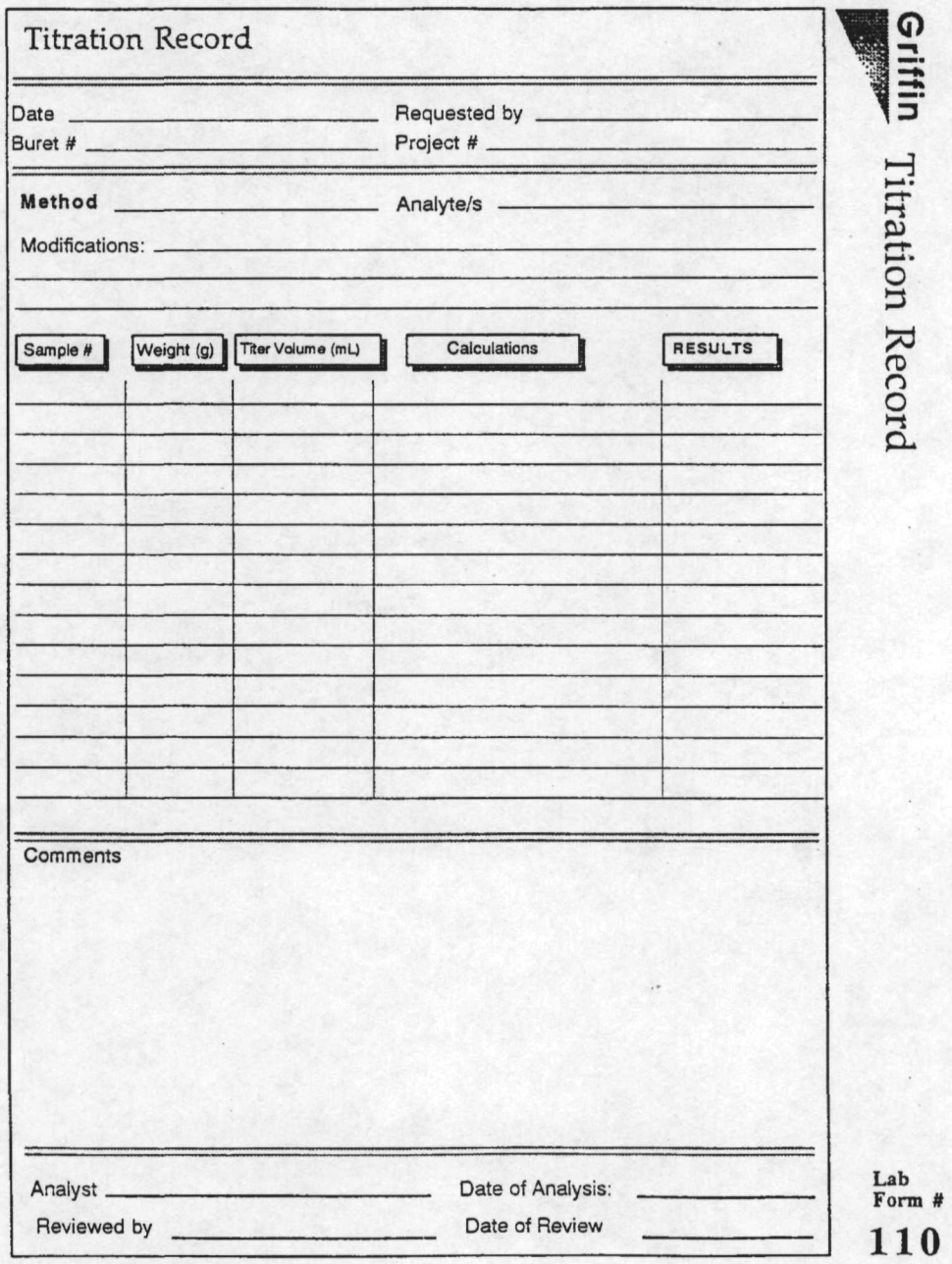
VI. FIGURES AND TABLES

Figure 1 - Titration Record Form



Titration Record

Date _____ Requested by _____

Buret # _____ Project # _____

Method _____ Analyte/s _____

Modifications: _____

Sample #	Weight (g)	Titer Volume (mL)	Calculations	RESULTS

Comments

Analyst _____ Date of Analysis: _____

Reviewed by _____ Date of Review _____

Griffin Titration Record

Lab Form # 110

Table 1 - Accuracy of Standard Analyses

Known % Cu in Standard	Preparation #	% Cu by Titration
1.00	1	1.01
1.00	2	1.01
1.00	3	1.01
Average % Cu		1.01%
Diff.[A] (%)		+0.01%
Relative Diff.[B] (%)		1.00 %

A Difference = (Observed % Cu) - (Expected % Cu)

B Relative Difference = (Difference / Expected % Cu) x 100%

Table 2 - Precision: Triplicate Sample Preparation

Sample	Preparation #	% Cu by Titration
GX306	1	35.67
GX306	2	35.85
GX306	3	35.23
Average % Cu		35.58
% RSD		0.89

DP BARCODE No.: D369347 **File Symbol No.:** 352-662 **PRODUCT NAME:** DuPont Kocide 3000

DATE OUT: 17 / NOV / 2009

FEE

SUBJECT: **FEE.PRODUCT CHEMISTRY REVIEW OF MP [ ] EP [X]**
DP BARCODE No.: D369347 **File Symbol No.:** 352-662
PRODUCT NAME: DuPont Kocide 3000
COMPANY: E. I. DuPont De Nemours & Co. Incorporation
FOOD USE [X] NON-FOOD USE [ ] INTEGRATED FORMULATION [X]
PCC: 023401; **Decision No.** 418861 **ACTION CODE:** R340

FROM: Shyam Mathur, 11/17/09
Product Chemistry Team Leader
Technical Review Branch/RD (7505P)

TO: Janet Whitehurst / Tony Kish, RM 22
Herbicide Branch / RD (7505P)

INTRODUCTION:

The registrant has submitted revised CSF's for alternate formulations # A1 (dated 06-25-09) & # A2 (dated 08-10-09). The revised alternate CSF's reflect the deletion of the non-approved inert ingredient and the adjustment in the amounts of the diluent. The registrant has submitted the supporting product chemistry data for the guidelines pertaining to the 830 series group A Product Property with MRID No. 478334-01. TRB has been asked to evaluate the revised alternate CSF's # A1 & # A2, the supporting product chemistry data and determine their acceptability.

SUMMARY OF FINDINGS

1. The end use product contains copper hydroxide [Reg. No. 352-682, 93.6%] as the active ingredient with the product label claim of 46.1%. According to the registrant part of the active ingredient (copper hydroxide) was obtained from the registered source of copper hydroxide and the rest was obtained by the chemical reaction. For details, please refer to Confidential Appendix.

2. The revised CSF's for alternate formulations # A1 & # A2 have been filled out correctly and completely. The nominal concentration of the active ingredient in the CSF concurs with the product label claim nominal concentration. The CSF's are in compliance with the PR Notice 91-2 and 40CFR§152.43. All the inert ingredients used in the formulations have been approved by the Agency (IIAB, 09-01-09). The proposed certified limits for the active ingredients and for the inert ingredients are in compliance with standard certified limits set forth in 40CFR§158.350(b)(2), except for the diluent. The registrant has provided proper justification for wider limits.

3. The revised alternate CSF's # A1 (dated 06-25-09) and # A2 (dated 08-10-09) are substantially similar to the current basic CSF (dated 09-07-07) in chemical composition and physical-chemical properties.

4. The product chemistry data submitted corresponding to guidelines 830.1550 (product identity & composition), 830.1600 (description of materials used to produce the product), 830.1650 (description of formulation process), 830.1670 (discussion of the formation of impurities) and 830.1750 (certified limits) satisfy the data requirements of 40CFR§158.320, §158.325, §158.335, §158.340 and §158.350 respectively.

CONCLUSIONS:

1. TRB has reviewed the revised alternate CSF's # A1 (dated 06-25-09) & # A2 (dated 08-10-09) and has found them not to be acceptable. Since the product is produced by an integrated process, the proposed CSF's must be supported by the 5 batch analysis of the product.

2. The product chemistry data submitted corresponding to guidelines 830.1550 (product identity & composition), 830.1600 (description of materials used to produce the product), 830.1650 (description of formulation process), 830.1670 (discussion of the formation of impurities) and 830.1750 (certified limits) are acceptable.

CONFIDENTIAL APPENDIX

[redacted]

830.1650. Description of formulation process (MRID No. 478334-01):

[redacted]

Manufacturing process information may be entitled to confidential treatment

Pages 85-86 Claimed confidential by submitter

TRANSMITTAL DOCUMENT

1. Name and Address of Submitter:

E.I. duPont de Nemours and Company
Stine-Haskell Research Center
P.O. Box 30
Newark, Delaware 19714-0030

2. Regulatory Action in Support of Which This Package is Submitted:

Submission of a Product Chemistry study for DuPont™ Kocide® 3000, EPA Reg. No. 352-662

3. Transmittal Date:

August 14, 2009

4. List of Submitted Studies:

Volume Number	Title	MRID
1	Administrative Materials (Transmittal Document)	
2	Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water-Dispersible Granule; DuPont-28831; OPPTS 830.1550, .1600, .1650, .1670, .1750	47833401

Submitter: Kristi A. Barnett Date: 8-14-09

Signature: Kristi A Barnett Title: Registration Specialist

Company Contact: Kristi A. Barnett Phone: 302-366-5051

FAX: 302-355-2806 e-mail: kristi.a.barnett@usa.dupont.com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

October 25, 2007

DuPont Received

DEC 07 2007

Ms. Kristi A. Barnett
U.S. Product Registration Coordinator
DUPONT CROP PROTECTION
Stine-Haskell Research Center
P.O. Box 30
Newark, DE 19714

Subject: Minor Formulation Amendment

Dear Ms. Barnett:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 9/13/07 for **EPA Registration 352-662**. The Registration Division (RD) has conducted a review of the Confidential Statement of Formula (CSF) submitted with this request for applicability under PRN 98-10 and finds that the change(s) requested falls within the scope of PRN 98-10. Therefore, the revised basic CSF dated 9/7/07, respectively **is acceptable**. A copy of the CSF has been added to the registration file for the subject product.

If you have any questions, please contact me via telephone at 703-308-8893 or e-mail (hobgood.sherada@epa.gov).

Sincerely,

Sherada D. Hobgood
Minor Formulation Review Coordinator
Registration Division (7505P)
Office of Pesticide Programs

DuPont™ Kocide® 3000

EPA FORM 8570-1

MRID	MRID Status	Citation Reference	Guideline
47833401		Zaucha, T. (2009) Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule. Project Number: DUPONT/28831. Unpublished study prepared by E. I. du Pont de Nemours and Co., Inc. 52 p.	830.1650/Description of formulation process
47833401		Zaucha, T. (2009) Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule. Project Number: DUPONT/28831. Unpublished study prepared by E. I. du Pont de Nemours and Co., Inc. 52 p.	830.1600/Description of materials used to produce the product
47833401		Zaucha, T. (2009) Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule. Project Number: DUPONT/28831. Unpublished study prepared by E. I. du Pont de Nemours and Co., Inc. 52 p.	830.1750/Certified limits
47833401		Zaucha, T. (2009) Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule. Project Number: DUPONT/28831. Unpublished study prepared by E. I. du Pont de Nemours and Co., Inc. 52 p.	830.1550/Product Identity and composition
47833401		Zaucha, T. (2009) Product Identity and Composition of End-Use Product Copper Hydroxide 46.1% Water Dispersible Granule. Project Number: DUPONT/28831. Unpublished study prepared by E. I. du Pont de Nemours and Co., Inc. 52 p.	830.1670/Discussion of formation of impurities

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

2/B/2/2

MAR 20 2009

Ms. Cristi A. Barnett
Product Registration
E.I. DuPont de Nemours and Company
Stine-Haskell Research Center PO Box 30
Newark, DE 19714

SUBJECT: Application for Pesticide Notification (PRN 98-10)
Request General Label Change (Comply with CA State Regulations)
EPA Reg. No. 352-662
Application Dated February 27, 2009

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 02/27/09 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form. Form Approved. OMB No. 2070-0060. Approval expires 05-31-98

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
352-662	Tony Kish	☐ None ☐ Restricted
4. Company/Product (Name)	**PM#**	
DuPont™ Kocide® 3000	22	

5. Name and Address of Applicant *(Include ZIP Code)*

DuPont Crop Protection
Stine Haskell Research Center
P.O. Box 30
Newark, DE 19714-0030 Attn: K. Barnett (S300/429)

☐ *Check if this is a new address*

6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA Reg. No. NOTIFICATION

Product Name MAR 20 2009

Section - II

☐ Amendment - Explain below.
☐ Resubmission in response to Agency letter dated _____
☒ Notification - Explain below.
☐ Final printed labels in response to Agency letter dated _____
☐ "Me Too" Application.
☐ Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of minor label change per PR Notice 98-10.

Label ID: SL-1344-1 022709 08-18-08

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging	Unit Packaging	Water Soluble Packaging	2. Type of Container
☐ Yes* ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____
* *Certification must be submitted*	If "Yes" Unit Packaging wgt. / No. per container	If "Yes" Package wgt / No. per container	

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ On Labeling accompanying product

6. Manner in Which Label is Affixed to Product ☐ Lithograph ☐ Paper glued ☐ Stenciled ☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)*

Name	Title	Telephone No. (Include Area Code)
Kristi A. Barnett	Registration Specialist	(302) 366-5051

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Received (Stamped)

2. Signature	3. Title
Kristi A Barnett	Registration Specialist
4. Typed Name	**5. Date**
Kristi A. Barnett	February 27, 2009

EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete. White - EPA File Copy (original) Yellow - Applicant Copy

DuPont Crop Protection
Stine-Haskell Research Center
P.O. Box 30
Newark, DE 19714-0030

ACTION: Notification of Minor Label Change per PR Notice 98-10
FEE CATEGORY: Not Applicable **REGISTRATION FEE: Not Applicable**

Sent Via Federal Express

February 27, 2009

Mr. Tony Kish, PM Team 22, Fungicide Branch
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P), Registration Division
U.S. Environmental Protection Agency
Room S-4900, One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202-4501

Subject: ***DuPont™ Kocide® 3000 (EPA Reg. No. 352-662): Notification of Minor Label Change per PR Notice 98-10***

Dear Mr. Kish:

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statements to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46. this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA.

Please accept this submission as notification of a minor label change for Kocide® 3000 (EPA Reg. No. 352-662) per PR Notice 98-10. DuPont intends to add a number of asterisks (*) to the Kocide® 3000 label to indicate that certain federally approved uses have not been registered, to date, in the State of California. The new asterisks have been added to the live oak crop and the following diseases listed with wheat, barley, and oats: Fusarium Head Blight Suppression and Stem Rust. These changes will enable DuPont to distribute product throughout the United States while utilizing one product label. The asterisks will be explained by the statement, "* Not registered for use in California". These additional asterisks have been requested by CDPR and only limit the geography where the product may be used on federally approved crops. The additional asterisks do not change, in any way, the directions for use.

In support of this notification, please find the following enclosed:

1. EPA Form 8570-1
2. Three (3) copies of the label identified as SL-1344-1 022709 08-18-08
3. One (1) highlighted copy of the label indicating the proposed changes
4. One (1) copy of the last EPA accepted label dated August 18, 2008

If you have any questions or need additional information, please contact me by phone at (302) 366-5051 or by email at kristi.a.barnett@usa.dupont.com.

Sincerely,

Kristi A Barnett

Kristi A. Barnett
Registration Specialist

H-

DUPONT®

DuPont™ Kocide® 3000

fungicide/bactericide

94

DuPont™ Kocide® 3000

fungicide/bactericide

Dry Flowable

NOTIFICATION

MAR 2 0 2009

Active Ingredients	*By Weight*
Copper Hydroxide*	46.1%
Inert Ingredients	53.9%
TOTAL	100.0%

(* Metallic Copper Equivalent 30%)

EPA Reg. No. 352-662

EPA Est. No.

NET CONTENTS: _____

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate use of gastric lavage.

See Label for Additional Precautions and Directions for use.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Causes moderate eye irritation. Harmful if swallowed, absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection sheet.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material, such as natural rubber, selection Category A

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic organisms. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish and aquatic organisms in adjacent aquatic sites. Do not contaminate water by disposal of equipment washwaters.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for protection of agricultural workers on farms, forests, nurseries and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours without required PPE.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides 40 CFR part 170. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep unprotected persons out of treated area until sprays have dried.

GENERAL INSTRUCTIONS

DuPont™ KOCIDE® 3000 may be applied as an aerial, ground dilute or ground concentrate spray unless specifically directed otherwise in the specific crop use directions.

The per acre use rate of KOCIDE® 3000 is applicable for both dilute and concentrate spraying. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to Minimum Recommended Spray Volume Table. Complete spray coverage is essential to assure optimum performance from KOCIDE® 3000. When treating by aerial application or with low volume application equipment, unless you have had specific previous experience, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization.

Consult the KOCIDE® 3000 label for specific rates and timing of application by crop. Where application rates and intervals are provided in a range (e.g. 4 to 12 pounds and 7 to 10 days), the higher rates and shorter spray intervals are recommended when rainfall is heavy and/or disease pressure is high. Use the higher rates for large mature tree crops.

The Pre-Harvest Interval (PHI) for Kocide 3000 is 0-days unless noted.

SPECIAL PRECAUTIONS

- If KOCIDE® 3000 is applied in a spray solution having a pH of less than 6.5, phytotoxicity may occur.
- Do not tank mix KOCIDE® 3000 with "Aliette" fungicide for use on any registered crops unless appropriate precautions have been taken to buffer the spray solution because severe phytotoxicity may result. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.
- This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.
- Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of KOCIDE® 3000 resulting in possible phytotoxicity or loss of effectiveness.
- Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Reduced effect on pests or crop injury may occur. Unless recommended on this label or by a state/local expert, it is advisable to test for compatibility and potential crop injury prior to commercial use of a new tank mix.

- It must be determined if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.
- Apply this product only through one or more of the following types of systems: sprinkler, including center pivot, lateral move, traveler, big gun, or plastic pipe solid set system(s). Do not apply this product through any other type of irrigation system. In California, do not apply in systems which contain aluminum parts or components.
- While volume is important in obtaining full spray coverage, often factors such as foliage density, environmental conditions and sprayer calibration have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those recommended by State and local regulatory authorities.
- When mixing, fill the spray tank one-half full with water. Add DuPont™ KOCIDE® 3000 slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Spreaders, stickers, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank or contact your chemical supplier. Observe all precautions and limitations on the labels of all products used in mixtures.

CROP CLASSIFICATION

CITRUS: Grapefruit, Kumquat, Lemon, Lime, Orange, Pummelo, Tangelo and Tangerine.

CONIFERS: Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce.

FIELD CROPS: Alfalfa, Barley, Corn, Oats, Peanut, Potato, Sugar Beet and Wheat.

SMALL FRUITS: Blackberry, Blueberry, Cranberry, Currant, Gooseberry, Raspberry and Strawberry.

TREE CROPS: Almond, Apple, Apricot, Avocado, Banana, Cacao, Cherry, Coffee, Filbert, Mango, Nectarine, Olive, Peach, Pear, Pecan, Pistachio, Plum, Prune, Quince and Walnut.

VEGETABLES: Bean, Beet, Beet Greens, Broccoli, Brussels Sprout, Cabbage, Cantaloupe, Carrot, Cauliflower, Celeriac, Celery, Cucumber, Eggplant, Greens (Collard, Mustard and Turnip), Honeydew, Muskmelon, Okra, Onion/Garlic, Pea, Pepper, Pumpkin, Spinach, Squash, Tomato, Watercress and Watermelon.

VINES: Grape, Hops and Kiwi.

MISCELLANEOUS: Atemoya, Carambola, Chives, Dill, Ginseng, Guava, Litchi, Live Oak, Macadamia, Mamey Sapote, Papaya, Parsley, Passion Fruit, Sugar Apple and Sycamore.

GREENHOUSE AND SHADEHOUSE CROPS: KOCIDE® 3000 may be used in greenhouses and shadehouses to control diseases on any crop on this label where physiology allows greenhouse or shadehouse culture. While specific directions are presented for Citrus, Cucumber, Eggplant, Pepper and Tomato; general use may occur for any crop on this label where physiology allows greenhouse or shadehouse culture. Consequently; injuries arising from the use of KOCIDE® 3000 on these types of greenhouse and shadehouse crops are the responsibility of the user.

Minimum Recommended Spray Volume (Gallons Per Acre) When Applying KOCIDE® 3000

	Aerial	Ground	
		Dilute	Concentrate
Citrus	10	800	100*
Conifers	10	100	30
Field Crops	3	20	---
Small Fruits	5	150	50
Tree Crops	10	400	50
Vegetables	3	20	---
Vines	5	150	50
Miscellaneous	10	150	50

* Pesticide application equipment such as "Curtec" or other similar sprayers which are capable of obtaining thorough coverage at low volumes may be used at as low as 20 gallons per acre of spray volume.

The following specific instructions are based on general application procedures. The recommendations of the State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

FROST INJURY PROTECTION

BACTERIAL ICE NUCLEATION INHIBITOR

Application of KOCIDE® 3000 made to all crops listed on this label at rates and stages of growth indicated on this label, at least 24 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae*, *Erwinia herbicola*, and *Pseudomonas fluorescens*) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

CITRUS

DuPont™ KOCIDE® 3000 may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. KOCIDE® 3000 per acre rates in these mixes must not exceed the maximum recommended labeled rates for disease control.

Adding foliar nutritionals or other products to spray mixtures containing KOCIDE® 3000 and applying to citrus during the post bloom period when young fruit are present may result in spray burn.

Disease	Rate/Acre	Use Instructions
Algal Spot, Melanose, Scab	1.75-5 lbs.	Apply as pre-bloom and post-bloom sprays. Use the higher rates when conditions favor disease.
Greasy Spot, Pink Pitting	0.75-2.5 lbs.	Apply in summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe. Use the higher rates when conditions favor disease.
Alternaria Brown Spot	1.75-3.5 lbs.	On susceptible varieties apply when the first spring flush appears and each flush thereafter. Application to fruit should start after two thirds of the petals have fallen and be repeated on a 21 day schedule or as needed. Use the higher rates when conditions favor disease.
Phytophthora Brown Rot, Septoria Spot	1.75-3.5 lbs.	Begin application in fall before or just after the first rain and continue as needed. For Brown Rot only, apply to skirts of trees to a height of at least 4 feet. For control of Septoria Spot or where fruit have already been infected with Brown Rot, apply to entire tree. Apply also to bare ground one foot beyond skirt. Use the higher rates when conditions favor disease. **NOTE**: In California, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per pound of KOCIDE® 3000 .
Phytophthora Foot Rot	0.5 lb.	Mix with 1 quart of water, "Tre-Hold" or latex paint. Paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to 1 year, but does not cure existing infections. **NOTE**: Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.
Citrus Canker (suppression)	1-2.5 lbs.	Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent upon disease pressure. Under heavy pressure, each flush of new growth should be sprayed.

NOTE: Phytotoxicity may occur on young tender flush when KOCIDE® 3000 is applied to citrus seedlings grown in greenhouses or shadehouses.

CITRUS
Field Nursery Grown

To control Melanose, Scab, Pink Pitting, Greasy Spot, Brown Rot and for suppression of Citrus Canker, apply 1.75 to 3.5 pounds of KOCIDE® 3000 per acre. Apply KOCIDE® 3000 at 28 day intervals or as needed depending on disease severity.

FIELD CROPS

Crop	Disease	Rate/Acre	Use Instructions
Alfalfa	Cercospora Leaf Spot, Leptosphaerulina Leaf Spot.	0.75 lbs	Apply 10 to 14 days before each harvest or earlier if disease threatens. **NOTE**: Spray injury may occur with sensitive varieties such as Lahontan.
Corn (Field Corn, Popcorn, Sweet Corn)	Bacterial Stalk Rot	0.5-1.75 lbs.	Begin treatment when disease first appears and repeat every 7 to 10 days or as needed. Use the higher rates and shorter spray intervals when conditions favor disease.
Peanut	Cercospora Leaf Spot	0.75-1.25 lbs.	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 10 to 14 day intervals or as needed. Reduce sprays to 7 day intervals during humid weather. Use the higher rates when conditions favor disease. Flowable sulfur may be added.
Potato	Early Blight, Late Blight	0.5-1.75 lbs.	Apply 0.5 to 1.75 lbs. at 7 to 10 day intervals or as needed starting when plants are 2 to 6 inches high in locations where disease is light. Apply up to 1.75 pounds per acre when disease is more severe. Under conditions of severe disease, control with DuPont™ KOCIDE® 3000 will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners.
Sugar Beet	Cercospora Leaf Spot	0.75-2.0 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals or as needed. Use the higher rates when conditions favor disease. Addition of a spreader/sticker is recommended.
Wheat, Barley, Oats	Fusarium Head Blight Suppression*, Helminthosporium Spot Blotch, Powdery Mildew, Stagonospora Leaf and Glume Blotch, Stem Rust*	0.5-0.75 lbs.	Make applications for early season disease control through heading. Minimum retreatment interval is 10-days. Use higher rates when conditions favor disease. Addition of adjuvants is recommended.

* Not registered for use in California

SMALL FRUITS

Crop	Disease	Rate/Acre	Use Instructions
Blackberry (Aurora, Boysen, Cascade, Chehalem, Logan, Marion, Santiam, Thornless Evergreen)	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	1.75 lbs.	Make fall application after harvest. Apply delayed dormant spray after pruning/training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch, Yellow Rust	0.75 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. **NOTE**: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Blueberry	Bacterial Canker	1.75-3.5 lbs.	Make first application before fall rains and a second application 4 weeks later. Use the higher rates when conditions favor disease.
	Fruit Rot, Phomopsis Twig Blight	1.0-2.25 lbs.	Dormant Application: Begin applications when bloom buds begin to swell. Make additional applications at 10 to 14 day intervals or as needed before blooms open.
Cranberry	Fruit Rot	3.5 lbs.	Make first application in late bloom. Apply one or two additional applications at 10 to 14 day intervals or as needed depending on disease severity.
	Rose Bloom	3.5 lbs.	Apply three sprays on 10 to 14 day schedule or as needed as soon as symptoms are observed.
	Bacterial Stem Canker	3.5 lbs.	Apply post harvest and again in spring at bud swell. Apply one or two additional applications at 10 to 14 day intervals or as needed depending on disease severity.
	Leaf Blight, Red Leaf Spot, Stem Blight, Tip Blight (*Monilinia*)	3.5 lbs.	Apply delayed dormant spray in the spring. Repeat at 10 to 14 day intervals or as needed through pre-bloom.
Currant, Gooseberry	Anthracnose, Leaf Spot	4.25 lbs.	Make initial application after first leaves have expanded. Continue on a 10 to 14 day schedule or as needed during wet conditions in the spring. Make an additional application after harvest.
Raspberry	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	1.75 lbs.	Make fall application after harvest. Apply delayed dormant spray after training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch, Yellow Rust	0.75 lbs.	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. **NOTE**: Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue applications if signs of crop injury appear.
Strawberry	Angular Leaf Spot (*Xanthomonas*), Leaf Blight, Leaf Scorch, Leaf Spot	0.75-1.25 lbs.	Begin application when plants are established and continue on a weekly schedule throughout the season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease. **NOTE**: Discontinue applications if signs of crop injury appear.

TREE CROPS

Crop	Disease	Rate/Acre	Use Instructions
Almond only	Bacterial Blast	0.5 lb	Almond Only: For bacterial blast control in sprinkler irrigated orchards or where disease is severe, apply 0.5 pounds per acre post-bloom at 2 week intervals or as needed or just before sprinkling.
Almond, Apricot, Cherry, Plum, Prune	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Coryneum Blight (Shot Hole)	3.5-7.0 lbs.	Make first application before fall rains and a second at late dormant. Use the higher rates when conditions favor disease. If needed, agricultural-type spray oil may be added. For Cherries: Where disease is severe, an additional application shortly after harvest may be required. **NOTE**: Foliar injury may occur from post-bloom sprays on almonds, especially on NePlus varieties.
	Blossom Brown Rot, Coryneum Blight (Shot Hole)	2.5-3.5 lbs. (Almond) 3.5-5.0 lbs. (All Others)	Apply during early bloom. Do not apply after full bloom or injury may occur. Use the higher rates when rainfall is heavy and disease pressure is high.
	Black Knot (Plum)	1.75-3.5 lbs	Make an application at bud swell up to early bloom for early season disease suppression. Apply before full bloom. Use the higher rates when rainfall is heavy and disease pressure is high. **NOTE**: To avoid plant injury, do not use after full bloom.
	Cherry Leaf Spot (Sour Cherries Only)	2.25-3.5 lbs.	Apply at petal fall as well as 1 to 2 times after petal fall. Use the lower rates where disease infection is light and use the higher rates for a dormant application or where disease infection is moderate to heavy. Do not apply to sweet cherry or the English Morello variety as severe injury will result. The addition of 1 to 3 pounds of hydrated lime per pound of DuPont™ KOCIDE® 3000 may reduce crop injury. **NOTE**: Moderate to severe injury such as leaf spotting and defoliation may occur from post-bloom applications.
Apple	Anthracnose, Blossom Blast, European Canker (*Nectria*), Shoot Blast (*Pseudomonas*)	5.25-7.0 lbs.	Apply before fall rains. Use the higher rates when conditions favor disease. **NOTE**: Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
	Apple Scab, Fire Blight	3.5-7.0 lbs.	Make application between silver-tip and green-tip. Apply as a full cover spray for early season disease suppression. **NOTE**: Moderate to severe crop injury may occur from late application; discontinue use when green-tip reaches 1/2 inch.
	Apple Scab	0.75-1.75 lbs.	Extended spray schedule where fruit finish is not a concern: Continued applications may be made at 5 to 7 day intervals or as needed between 1/2 inch green-tip and first cover spray. **NOTE**: Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh market apples or for apples where fruit finish is a concern as it is likely to cause fruit russetting. The addition of 1 to 3 pounds of hydrated lime per pound of KOCIDE® 3000 may reduce crop injury.
	Fire Blight	0.5-0.75 lbs.	
	Collar Rot, Crown Rot	1.75 lbs.	Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply in early spring or in fall after harvest for best results. Do not apply to foliage or fruit. **NOTE**: Do not use if soil pH is below 5.5 since copper toxicity may result.

TREE CROPS (cont'd)

Crop	Disease	Rate/Acre	Use Instructions
Avocado	Anthracnose, Blotch, Scab	3.5-5.25 lbs.	Apply when bloom buds begin to swell and continue application at monthly intervals for five to six applications. Use the higher rates when conditions favor disease.
Banana	Sigatoka (Black and Yellow)	0.75 lbs.	Apply at 7 to 14 day intervals or as needed.
	Black Pitting	1.75 lbs.	Mix in 100 gallons of water. Apply to the fruit stem and the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
Cacao	Black Pod	0.75-3.75 lbs.	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply 0.75 to 2.0 lbs. at 14 to 21 day intervals or as needed depending on disease severity. For drier areas, make two to four applications using 2.5 to 3.75 pounds per acre according to disease incidence and planting density.
Coffee	Coffee Berry Disease (*Colletotrichum coffeanum*)	2.5-3.5 lbs.	Apply first spray after flowering and before onset of long rains and then at 21 to 28 day intervals or as needed until picking. Use the higher rates when conditions favor disease.
	Bacterial Blight (*Pseudomonas syringae*)	2.5-3.5 lbs.	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14 to 21 day intervals or as needed.The critical time for spraying to control this disease is just before, during and after flowering(s), especially when coinciding with wet weather. Use the higher rates when rainfall is heavy and disease pressure is high.
	Leaf Rust (*Hemileia vastatrix*)	0.75-1.75 lbs.	Apply before the onset of rain and then at 21 day intervals or as needed while the rains continue. Use the higher rates when rainfall is heavy and disease pressure is high.
	Iron Spot (*Cercospora coffeicola*), Pink Disease (*Corticium salmonicolor*)	0.75 lbs.	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.
Filbert	Bacterial Blight	7.0-10.5 lbs.	Apply as a post harvest spray. In seasons of heavy rainfall, apply a second spray when three-fourths of the leaves have dropped. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Eastern Filbert Blight	7.0-10.5 lbs.	Apply as a dilute spray in adequate water for thorough coverage. Make applications starting at bud swell to bud break and continue at 2-week intervals or as needed until early May. Thorough coverage is essential. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil or sticking agent may be added.
Mango	Anthracnose	2-4 lbs.	Apply monthly after fruit set until harvest. Use the higher rates when rainfall is heavy and disease pressure is high.
Olive	Olive Knot, Peacock Spot	3.5-5.25 lbs.	Make first application before winter rains begin. A second application in early spring should be made if disease is severe. Apply the higher rates for heavy disease pressure or when conditions favor disease development.

TREE CROPS (cont'd)

Crop	Disease	Rate/Acre	Use Instructions
Peach, Nectarine	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Bacterial Spot (*Xanthomonas*), Coryneum Blight (Shot Hole), Leaf Curl	3.5-7.0 lbs.	Make first application before fall rains and a second at late dormant. For peach leaf curl, late dormant application must be made before leaf buds swell. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Blossom Brown Rot, Coryneum Blight (Shot Hole), Leaf Curl	3.5-5.25 lbs.	Full cover spray at pink bud. Use the higher rates when conditions favor disease.
	Bacterial Spot	0.25 -0.5 lb.	Apply as a post bloom cover spray. Repeat at 5 day intervals if needed. Do not make more than 6 applications. **NOTE: Spotting of leaves and defoliation may occur from use in cover sprays. Discontinue use if injury occurs**
Pear	Fire Blight	0.5 lb.	Apply at 5 day intervals or as needed throughout the bloom period. **NOTE**: Russetting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.
	Blossom Blast (*Pseudomonas*)	5.25-7.0 lbs.	Apply before fall rains and again during dormancy before spring growth starts. Use the higher rates when disease pressure is high or when conditions favor disease development.
Pecan	Kernel Rot, Shuck Rot (*Phytophthora cactorum*), Zonate Leaf Spot (*Cristulariella pyramidalis*)	0.75-1.75 lbs.	For suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals or as needed, starting at kernel growth and continue until shucks open. Use the higher rates and shorter spray intervals if frequent rainfall occurs.
	Ball Moss, Spanish Moss	2.5-3.5 lbs.	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1 1/2 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.
Pistachio	Botryosphaeria Panicle and Shoot Blight, Botrytis Blight, Late Blight (*Alternaria alternata*), Septoria Leaf Blight	1.75-3.5 lbs.	Make initial application at bud swell and repeat on a 14 to 28 day schedule or as needed. If disease conditions are severe, use the higher rates and shorter spray intervals.
Quince	Fire Blight	0.5 lb.	Apply at 5 day intervals or as needed throughout the bloom period. Apply in adequate water for thorough coverage.
Walnut	Walnut Blight	3.5-5.25 lbs.	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage or as needed when frequent rainfall or extended periods of moisture occur. Thorough coverage of catkins, leaves and nutlets is essential for effective control. **NOTE**: Adequate control may not be obtained when copper tolerant species of *Xanthomonas* bacteria are present.

VEGETABLES

Crop	Disease	Rate/Acre	Use Instructions
Bean (Dry, Green)	Brown Spot, Common Blight, Halo Blight	0.5-1.25 lbs	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule or as needed depending on environmental conditions. Use the higher rates for more severe disease.
Beet (Table Beet, Beet Greens)	Cercospora Leaf Spot	0.75-2.0 lbs.	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals or as needed. Use the higher rates when conditions favor disease.
Carrot	Alternaria Leaf Spot, Cercospora Leaf Spot	0.75-1.5 lbs.	Begin applications when disease first threatens and repeat at 7 to 14 day intervals or as needed depending on disease severity.
Celery, Celeriac	Bacterial Blight, Cercospora Early Blight, Septoria Late Blight	0.75-1.5 lbs.	Begin applications as soon as plants are first established in the field, repeating at 5 to 7 day intervals or as needed depending on disease severity and environmental conditions.
Crucifers (Broccoli, Brussels Sprout, Cabbage, Cauliflower, Collard Greens, Mustard Greens, Turnip Greens)	Black Leaf Spot (*Alternaria*), Black Rot (*Xanthomonas*), Downy Mildew	0.5-0.75 lbs.	Begin application after transplants are set in the field, or shortly after emergence of field seeded crops or when conditions favor disease development. Apply at 7 to 10 day intervals or as needed. Use the higher rates when conditions favor disease **NOTE**: Reddening of older leaves may occur on broccoli and a flecking of wrapper leaves may occur on cabbage.
Cucurbits (Cantaloupe, Cucumber, Honeydew, Muskmelon, Pumpkin, Squash, Watermelon)	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Gummy Stem Blight, Powdery Mildew, Watermelon Bacterial Fruit Blotch (suppression)	0.5-1.25 lbs.	Begin applications prior to disease development and continue while conditions are favorable for disease development. Repeat at 5 to 7 day intervals or as needed. Use the higher rates when conditions favor disease. **NOTE**: Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	0.75-1.5 lbs.	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease severity.
Okra	Anthracnose, Bacterial Leaf Spot, Leaf Spots, Pod Spot, Powdery Mildew	0.75-1.75 lbs.	Begin treatment when disease first threatens and repeat every 5 to 10 days or as needed depending on disease severity. Use the higher rates and shorter spray intervals when conditions favor disease.
Onion, Garlic	Bacterial Blight, Downy Mildew, Purple Blotch	0.75-1.5 lbs.	Begin when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals or as needed depending on disease severity. Can cause phytotoxicity to leaves.
Pea	Powdery Mildew	0.5-1.25 lbs.	Begin applications when disease symptoms first appear and repeat at weekly intervals or as needed. Use the higher rates when conditions favor disease.
Pepper	Anthracnose, Bacterial Spot, Cercospora Leaf Spot	0.75-1.25 lbs.	Begin applications when conditions first favor disease development and repeat at 7 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.
Spinach	Anthracnose, Blue Mold, Cercospora Leaf Spot, White Rust	0.75-1.25 lbs.	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals or as needed. Use the higher rates when conditions favor disease. **NOTE**: Flecking may occur on spinach leaves.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	0.75-1.75 lbs.	Begin applications when disease first threatens and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.

VEGETABLES (cont'd)

Crop	Disease	Rate/Acre	Use Instructions
Watercress	Cercospora Leaf Spot	0.75-1.5 lbs.	Begin applications when plants are first established in the field, repeating at 7 to 14 day intervals or as needed depending on disease severity. Do not exceed four applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.

VINES

Crop	Disease	Rate/Acre	Use Instructions
Grape	Black Rot, Downy Mildew, Phomopsis, Powdery Mildew	0.75-1.75 lbs.	Begin applications at bud break with subsequent applications throughout the season depending on disease severity. Use the higher rates when conditions favor disease. **NOTE**: Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per pound of DuPont™ KOCIDE® 3000.
Hops	Downy Mildew	0.75-1.5 lbs.	Make crown treatment after pruning, but before training. After training, additional treatments are needed at about 10 day intervals **NOTE**: Discontinue use two weeks before harvest.
Kiwi	*Erwinia herbicola*, *Pseudomonas fluorescens*, *Pseudomonas syringae*	2.0-3.5 lbs.	Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of three applications may be made.

MISCELLANEOUS

Crop	Disease	Rate/Acre	Use Instructions
Atemoya	Anthracnose	1.25-2.0 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Carambola	Anthracnose	2.5-3.5 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Chives	Downy Mildew	0.75-1.5 lbs	Begin applications when plants are established in the field. Repeat applications every 7 to 10 days or as needed depending on disease conditions.
Dill	Phoma Leaf Spot, Rhizoctonia Foliage Blight	0.75-1.25 lbs.	Begin applications when plants are first established in the field and repeat at 7 to 10 day intervals or as needed depending upon disease severity and environmental conditions. Use the higher rates when conditions favor disease.
Ginseng	Alternaria Leaf Blight, Stem Blight	1.0-1.75 lbs.	Use as a tank mix with 2 pounds "Rovral" 50W in 100 gallons of water. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Begin KOCIDE® 3000-"Rovral" applications as soon as plants have emerged in spring. Applications should be repeated every 7 days or as needed until plants become dormant in fall. Apply fungicides at least 8 hours before rain. Use of a spreader-sticker or sticker is advised. **NOTE**: Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2 to 4 year old Ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.

MISCELLANEOUS (cont'd)

Crop	Disease	Rate/Acre	Use Instructions
Guava	Anthracnose, Red Algae	1.25-2.0 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Litchi	Anthracnose	1.25-2.0 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Live Oak*	Ball Moss, Spanish Moss	2.5-3.5 lbs.	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1 1/2 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.
Macadamia	Anthracnose	2.5-4.0 lbs.	Initiate sprays at first sign of flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
	Phytophthora Blight (*P. capsici*), Raceme Blight (*Botrytis cinerea*)	1.25-2.4 lbs.	Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Mamey Sapote	Algal Leaf Spot, Anthracnose	2.5-3.5 lbs.	Apply when conditions favor disease development. Repeat on 14 to 30 day schedule or as needed as disease severity and environmental conditions dictate. Use the higher rates when conditions favor disease.
Papaya	Anthracnose	1.75-4.25 lbs.	Apply before disease appears. Apply at 10 to 14 day intervals under light disease pressure and 5 to 7 day intervals or as needed under heavy disease pressure. The addition of an approved spreader is desirable. Use the higher rates when conditions favor disease.
Parsley	Bacterial Blight (*Pseudomonas sp.*)	1.25-2.0 lbs.	Begin applications when plants are first established in the field and repeat at 5 to 7 days intervals or as needed depending on disease severity and environmental conditions.
Passion Fruit	Anthracnose	2.5-4.0 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Sugar Apple (*Annona*)	Anthracnose	5.25-7.75 lbs.	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease.
Sycamore	Anthracnose	0.75-1.25 lbs.	Apply as a full cover spray in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% leaf expansion. Use the higher rates when conditions favor disease.

* Not registered for use in California

CONIFERS

For use on conifers, including Douglas Fir, Fir, Juniper, Leyland Cypress, Pine and Spruce, in Christmas tree plantings, forest stands and silviculture nurseries.

For control of foliar diseases, apply DuPont™ KOCIDE® 3000 as a thorough cover spray at rates ranging from 0.75 to 1.75 pounds per acre. Begin applications in the spring at the initiation of new growth and repeat at 2 to 4 week intervals or as needed. Use the higher rates when disease pressure is severe or when environmental conditions favor disease development.

KOCIDE® 3000 is recommended for use on the listed conifers for control of the following diseases:

Crop	Scientific Name	Disease
Douglas Fir	*Pseudotsuga menziesii*	Rhabdocline Needlecast
Fir	*Abies spp.*	Needlecasts
Juniper	*Juniperus spp.*	Anthracnose, Phomopsis Twig Dieback
Leyland Cypress	*X Cupressocyparis leylandii*	Cercospora Needle Blight
Pine	*Pinus spp.*	Needlecasts
Spruce	*Picea spp.*	Needlecasts

Lichens: To control lichens on any of the conifers above, apply 3.5 pounds of KOCIDE® 3000 per acre as a dormant application before new growth emerges in the spring. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months.

NOTE: Do not buffer or combine with emulsifiable concentrate insecticides.

GREENHOUSE AND SHADEHOUSE CROPS

Notice to User: KOCIDE® 3000 may be used in greenhouses and shadehouses to control diseases on crops which appear on this label, and specific instructions have been developed for the crops listed. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differs greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not KOCIDE® 3000 can be used safely on all greenhouse and shadehouse grown crops. The user should determine if KOCIDE® 3000 can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. Consequently; injuries arising from the use of KOCIDE® 3000 on these types of greenhouse and shadehouse crops are the responsibility of the user.

Apply KOCIDE® 3000 according to specific rates given for those crops in pounds per acre. **One level tablespoon of KOCIDE® 3000 per 1,000 square feet is equivalent to 0.5 pound per acre.** KOCIDE® 3000 should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat at 7 to 14 day intervals or as needed; use shorter spray intervals during periods when severe disease conditions persist.

NOTE: Phytotoxicity may occur on young tender flush when KOCIDE® 3000 is applied to citrus seedlings grown in greenhouses or shadehouses.

Crop	Disease	Rate per 1000 Sq Ft	Use Instructions
Citrus (Non-Bearing Nursery)	Brown Rot, Citrus Canker, Greasy Spot, Melanose, Pink Pitting, Scab	1 1/2 TBSP	Begin applications when disease first threatens. Repeat at 30 day intervals or as needed depending on disease severity.
Cucumber	Angular Leaf Spot, Downy Mildew	1/2 - 1 1/2 TBSP	Apply weekly when plants begin to vine. Use the higher rates when conditions favor disease.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	1/2 TBSP	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals or as needed depending on disease severity.
Pepper	Bacterial Spot	1/2 - 1 1/2 TBSP	Begin applications when conditions first favor disease development and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.
Tomato	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	1/2 - 1 1/2 TBSP	Begin applications when disease first threatens and repeat at 5 to 10 day intervals or as needed depending on disease severity. Use the higher rates when conditions favor disease.

GENERAL CHEMIGATION INSTRUCTIONS

Apply this product only through one or more of the following types of systems: sprinkler, including center pivot, lateral move, traveler, big gun, or plastic pipe solid set system(s). Do not apply this product through any other type of irrigation system. In California, do not apply in systems which contain aluminum parts or components.

Crop injury, lack of effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Shut off injection equipment after treatment and continue to operate irrigation system until DuPont™ KOCIDE® 3000 has been cleared from the last sprinkler head.

CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into the reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

NOTE: It must be determined if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.

When mixing, fill the nurse tank half full with water. Add KOCIDE® 3000 slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all precautions and limitations on the labels of all products used in mixtures. Agitation of the mixture in the nurse tank is recommended.

KOCIDE® 3000 should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until KOCIDE® 3000 has been cleared from the last sprinkler head.

SPRINKLER CHEMIGATION

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must also contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are

compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

NOTE: It must be determined if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment, such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.

When mixing, fill the nurse tank half full with water. Add DuPont™ KOCIDE® 3000 slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. Stickers, spreaders, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank. Because of the wide variety of possible combinations which can be encountered, observe all precautions and limitations on the labels of all products used in mixtures. Agitation of the mixture in the nurse tank is recommended.

KOCIDE® 3000 should be added through a traveling irrigation system continuously or at the last 30 minutes of solid set irrigation systems. Shut off injection equipment after treatment and continue to operate irrigation system until KOCIDE® 3000 has been cleared from the last sprinkler head.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

NOTICE TO BUYER: Purchase of this material does not confer any rights under patents of countries outside of the United States.

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It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for Use, subject to the inherent risks described above, when used in accordance with the Directions for Use under normal conditions.

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